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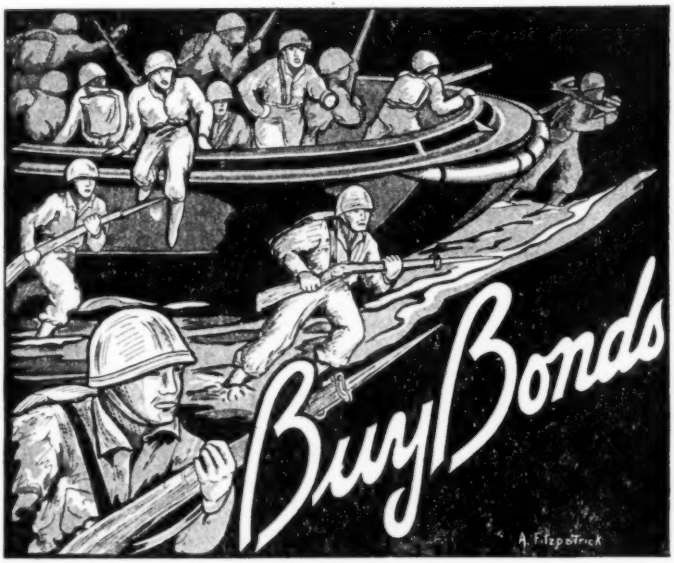

In this Issue . . Accidents to longshoremen . . . War bonuses to seamen . . . Wages and manpower in farming . . . Earnings in ship-repair yards

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

+ HUGH S. HANNA, EDITOR +

CONTENTS JANUARY 1944, Vol. 58, No. 1

	Page
Special articles:	
Injuries and accident causes in the longshore industry, 1942	1
War-risk bonuses for seafaring personnel	8
Wartime wages, income, and manpower in farming	15
Productivity in electric-energy generation	25
Labor conditions in the Netherlands	32
Employment and labor conditions:	
Employment of prisoners of war	58
Alleviation of farm-labor shortage in Canada	59
Wartime employment of women in underground mining in India	61
Unemployment in Peru, 1942	61
Employment conditions in Sweden, 1943	62
Wartime policies:	
Wage agreement of Progressive Mine Workers	65
Commission pay under "Little Steel" formula	65
Procedure for settling disputes over overtime pay	66
Revision of standard membership-maintenance clause	67
Liberalized allowances for war service dependents	67
Women's Employment Board of Australia	69
Reaffirmation of wage ceiling in Canada	69
Freezing of workers in essential Canadian industries	70
Official British statements on manpower in 1943	71
Industrial relations:	
Union agreements in the agricultural-machinery industry	77
Health and industrial accidents:	
Shipyard health problems	92
Industrial injuries, September 1943	94
Accidents and health in British factories, 1942	97
Safety and health requirements for mining in Peru, 1943	100
Cooperation:	
Goods and services provided by consumers' cooperatives in the United States	102
Status of labor banks, June 30, 1943	106
Education and training:	
Scientific training for women for war jobs	107
Vocational rehabilitation of disabled veterans of World War II	109
Establishment of textile trade schools in Argentina, 1942	111
Training of labor reserves in Soviet Union, 1940–43	112

	Page
Labor organizations:	
1943 convention of Congress of Industrial Organizations	113
Industrial disputes:	
Strikes in October and November 1943	120
Activities of United States Conciliation Service, November 1943	120
Wage and hour statistics:	
Earnings in southwestern petroleum refineries, April 1943	124
Hourly earnings in private ship-repair yards, spring of 1943	140
Wage rates in power laundries, spring of 1943	157
Union wages and hours in the building trades, July 1, 1943	163
Trend in factory earnings, 1939 to October 1943	182
China—Trend of wages in Chungking, 1927 to 1943	184
Palestine—Wages on public works, September 1942	184
Cost of living and retail prices:	
Cost of living in large cities, November 1943	186
Retail prices of food in November 1943	189
Coal prices in September 1943	195
Wholesale prices:	
Wholesale prices in November 1943	197
Labor turnover:	
Labor turnover in manufacturing, mining, and public utilities, October 1943	202
Building operations:	
Building construction in urban areas, November 1943	207
Trend of employment, earnings, and hours:	
Summary of reports for November 1943	210
Industrial and business employment	210
Public employment	211
Detailed reports for industrial and business employment, October 1943:	
Estimates of nonagricultural employment	212
Industrial and business employment	213
Indexes of employment and pay rolls	214
Average earnings and hours	223
Civilian labor force, November 1943	227
Labor conditions in Latin America	61, 100, 111
Recent publications of labor interest	229

Page
113
120
120
124
140
157
163
182
184
184
186
189
195
197
202
207
210
210
211
212
213
214
223
227
100, 111
229

This Issue in Brief

Injuries in longshore industry, 1942.

During 1942 the injury-frequency rate in the longshore industry far exceeded that recorded for any other industry, however hazardous. More than 138 injuries for every million hours worked occurred in that industry, as compared with the next highest rate—in the logging industry—of 89.6. Analysis of the longshore accidents indicated that nearly all could have been prevented by better safety and housekeeping methods. Page 1.

War-risk bonuses for seafaring personnel.

In recognition of the unusual hazards of seafaring in wartime, the seaman receives not only his regular wages but certain extra payments. These include (1) a temporary wartime emergency increase in wages paid to all maritime employees whether or not exposed to enemy action and (2) bonuses to seamen in hazardous zones. The bonuses vary according to the route of the voyage, the special danger areas traversed, and whether the ship is subjected to enemy attack while in port or at anchorage. Page 8.

Wartime wages, income, and manpower in farming.

The outstanding developments in the field of farm labor during the war are the exceptional increases in the wage rates paid to hired farm labor, the even greater increases in the net income of farm operators, the rise in the average output of farm workers, and the transition from surpluses to shortages of manpower in farm employment. These developments are analyzed in an article on page 15.

Productivity in electric-energy generation.

Output per man-hour in the generation of electric energy rose about 20 percent from 1937 to 1942 and about 13 percent from 1939 to 1942. Increased productivity since the war began has been attained largely through greater utilization of power-plant facilities. Data on productivity in hydro-electric and fuel plants since 1937, and an analysis of the factors involved, are given in the article on page 25.

Labor conditions in the Netherlands.

In peacetime the Netherlands preserved a balance among agriculture, commerce, industry, and transport through a policy of public control which favored the retention of a strong agriculture. Employers and employees had constitutional rights and other rights acquired by law which fostered a high degree of organization. Labor and employer organizations had the chief responsibility for establishing and maintaining fair labor standards in different pursuits, including agriculture. Serious unemployment characterized the 1930's, and the index of employment did not reach the pre-depression level before the present hostilities commenced. Dutch farmers and industrial workers developed an extremely active cooperative movement. There were public systems of conciliation and arbitration and a social-insurance system that was comprehensive in coverage as regards both population and risks. Working-class solidarity has been a continuing force in blocking German utilization of labor. Page 32.

Employment of prisoners of war.

Prisoners of war may be utilized by employers in the United States provided they satisfy certain conditions laid down by the War Department and the War Manpower Commission. Wages, etc., must be equal to those currently provided for free labor, prisoners cannot be used to displace free labor, and they may be employed only if other labor cannot be obtained. Page 58.

Training of labor reserves in the Soviet Union.

The Government of the Soviet Union has since late in 1940 been carrying on a program of mass training of boys and girls as a labor reserve. Since the outbreak of the war the program has been devoted to training these young people for war industries. In the period of nearly 3 years since the program was undertaken about 1,550,000 young workers have been trained. Page 112.

Union agreements in the agricultural-machinery industry.

Approximately 70 percent of the workers in the agricultural-machinery industry are covered by union agreements. In September 1943 there were nearly 96,000 workers in this industry. A topical analysis of the provisions of 36 agreements in effect during 1943 is given on page 77. These agreements cover almost 90 percent of all the employees in the industry working under agreements.

Vocational rehabilitation of disabled veterans of World War II.

Vocational rehabilitation is provided, under an act of March 24, 1943, for veterans of the present war who have sustained at least a 10-percent disability. Between December 6, 1941, and October 31, 1943, about 300,000 veterans had been discharged for disability. Of these about a tenth had applied for training. The low rate of application is attributed to the ease of obtaining employment, without rehabilitative training, under present conditions. Characteristics of the students in training are given in the article on page 109.

Earnings in southwestern petroleum refineries.

A study by the Bureau of Labor Statistics indicates that male workers in southwestern petroleum refineries in April 1943 were earning an average of $1.16 per hour. Nearly four-fifths of all the workers covered were in occupations averaging $1.00 or more per hour. Hourly averages ranged from $1.00 in the inland Texas area to $1.24 along the Gulf Coast of the same State. Page 124.

Hourly earnings in private ship-repair yards.

Average straight-time earnings of workers in ship-repair yards amounted to $1.062 an hour in May 1943. By regions, average hourly earnings varied from 92.3 cents on the Gulf Coast to $1.259 on the Pacific Coast. Earnings were 11.4 cents higher in May 1943 than in the spring of 1942. The increase is very largely attributed to wage adjustments during the summer of 1942 under the regional wage agreements of that year. These agreements increased the rates in ship-repair yards by 8 cents an hour for Atlantic Coast and Great Lakes workers and by a sliding scale ranging from 9 cents for the lowest-paid workers to 13 cents for the highest-paid workers in the Gulf Coast region. Page 140.

Wage rates in power laundries, spring of 1943.

The laundry industry employs large numbers of women workers and most of the work requires little training or experience. Wages have been among the lowest of urban trades, the average hourly earnings, in the spring of 1943, being 53.5 cents for male extractor operators and 66.5 cents for male washers. The averages for women workers ranged from 37 cents per hour in the lower-paid occupations to 42.5 cents in the higher-paid occupations. Wages were highest on the Pacific Coast where some workers received more than $1.00 per hour. Page 157.

Union rates in the building trades.

The average union wage rate for building-trades workers on July 1, 1943, was $1.414 per hour in the 75 cities covered by the regular annual survey of the Bureau of Labor Statistics. Journeymen averaged $1.563 and helpers averaged $0.876. These averages represent an increase of 0.7 percent over 1942. The maximum straight-time weekly hours permitted by union agreements for all trades averaged 39.8 in 1943. Page 163.

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MONTHLY LABOR REVIEW

FOR JANUARY 1944

Injuries and Accident Causes in the Longshore Industry, 1942 [1]

By FRANK S. MCELROY and GEORGE R. MCCORMACK, *Bureau of Labor Statistics*

The Industry Record, 1942

MORE than 138 longshoremen experienced disabling work injuries in the course of every million employee-hours of longshore work performed during the year 1942. No other industry for which injury-frequency information is available had a record even approaching this unfavorable figure.[2] The highest injury-frequency rate recorded for any other industry in 1942 occurred in the highly hazardous operations of logging, where there were 89.6 disabling injuries for every million employee-hours worked. In the iron and steel industry the rate was 10.4 and in the construction industry it was 36.7.

Despite the fact that every one connected with the longshore industry seems fully aware that this is one of the most hazardous of all industries, there is little evidence of any serious attempts to carry on a safety program. The personal contacts with longshore employers made during the Bureau's survey indicated that, particularly on the South Atlantic and Gulf Coasts, safety-code provisions are seldom followed. Hardly any of the contract stevedores maintain any accident records beyond those which are legally required for workmen's compensation purposes. In most instances, therefore, the employers have only a partial knowledge about the accident experience of their own operations and only vague ideas as to what are the predominant causes of injuries to their employees. In spite of the fundamental and seemingly obvious necessity for maintaining first-aid facilities where injuries are known to occur, it was frequently found that not even a first-aid kit was provided. In only a very few instances was there a first-aid room with a trained attendant in charge.

The use of personal protective equipment is almost unknown. Goggles and respirators are used only when the work is such that it would be physically impossible to carry on without them. Hard hats and safety shoes are conspicuous by their absence. In a number of instances the persons interviewed stated that some effort had been made to promote the use of safety clothing, but that the workers and

[1] A detailed report of the Bureau's study, of which this article is a summary, will appear in a forthcoming bulletin.

[2] See the Bureau's Bulletin No. 758 (Industrial Injuries in the United States during 1942), based upon the annual survey covering industrial injuries in 147 industries.

the unions were strongly opposed to making the use of such equipment compulsory.

Throughout the industry the attitude toward safety appears to be that safety in the abstract is desirable; in practice only a few individuals are willing to spend the time and effort to do anything about it. The result appears in the strikingly high disablement rate.

The average injury-frequency rate noted above—138 disabling injuries per million employee-hours worked—is based upon injury summaries for the year 1942 furnished voluntarily to the Bureau of Labor Statistics by 258 employers of longshoremen. In the aggregate these employers reported that, in 42,650,000 employee-hours worked, 43 of their longshoremen were either killed or so disabled that they will never again be able to work in any normal occupation, 497 experienced permanent disabilities which will impair their physical ability for the rest of their lives, and 5,361 were temporarily rendered unable to work for an average of 34 days each. Just what this volume of injuries represents in respect to the entire longshore industry cannot be accurately determined because of the lack of definite figures regarding the actual size of the industry or the average time worked by individual longshoremen during the year. However, assuming that 1,800 hours constitute a reasonable estimate of the average time worked by each longshoreman in 1942 and that there were approximately 90,000 longshoremen in the United States in that year, then the reports received may be estimated to cover the full experience of about 24,000 longshoremen, or more than one-fourth of the entire industry. On this basis, the total volume of disabling injuries for the industry as a whole in the year 1942 would amount to over 22,000. More accurately, it may be stated that the reported figures indicate that in 1942 the chances for an individual longshoreman were approximately 1 in 560 that he would be killed or completely disabled for life; 1 in 48 that he would experience a permanent physical impairment; and 1 in 4 that he would lose time because of a temporary injury.

Despite the fact that the reported figures indicate an extremely high incidence of disabling injuries in longshore work, there are grounds for believing that the frequency rate of 138 represents a substantial understatement of the true injury experience of the industry. As a general rule stevedore employers do not maintain complete injury records. In many instances the only records consist of copies of the workmen's compensation forms which have been filed for the injuries which resulted in compensable disabilities. The suspicion that many of the reports received were based upon such records rather than upon an actual count of all disabling injuries was substantiated in a number of cases when a Bureau representative visited the employers' offices to obtain data regarding accident causes.

For the purpose of maintaining comparability between establishments and industries the standard method of compiling industrial injury statistics provides that all injuries resulting in an inability to work extending beyond the day of injury shall be included in the computation of injury-frequency rates. Compensation, however, is seldom payable unless the disability extends over a period of several days. Reporting only compensable cases results in a frequency rate considerably lower than if it were based on all lost-time cases as called for by the standard. On the basis of the known understatements in some of the reports, therefore, it is strongly suspected that

the true injury-frequency rate for the longshore industry in 1942 was more nearly 160 than the 138 indicated by the tabulated reports.

OCCUPATIONAL DIFFERENCES

Holdmen, as a group, have by far the most hazardous assignment among all the longshore occupations. In 1942 this group of workers experienced an average of 294 disabling injuries in every million employee-hours worked—more than double the average for all longshore work. Warehousemen had the next highest frequency rate (182), but this rate was based upon a comparatively small sample and cannot be considered entirely representative. It is pertinent, however, to note the wide difference in the relative seriousness of the injuries experienced by the holdmen and the warehousemen. Out of 162 reported injuries to warehousemen all but 1 resulted only in temporary disability, and the average time lost per temporary injury was only 19 days. On the other hand, 89, or 8.7 percent of the 1,020 injuries reported for holdmen, resulted either in death or in permanent physical impairment, and the average time lost per temporary disability was 41 days.

TABLE 1.—*Injury Rates and Extent of Disability for Longshoremen, by Occupation, for 258 Stevedoring Establishments, 1942*

Longshore occupations	Number of units reporting	Number of employee-hours worked	Number of disabling injuries				Total number of days lost [1]	Injury rates [2]		Average days lost per temporary total disability
			Total	Resulting in—				Frequency	Severity [3]	
				Death and permanent total disability	Permanent partial disability	Temporary total disability				
All occupations	512	42,650,645	5,901	43	497	5,361	1,090,668	138.4	25.6	34
Car loaders	26	1,759,081	228	0	1	227	6,967	129.6	4.0	29
Checkers	52	940,638	23	0	0	23	398	24.5	.4	17
Dockmen	74	3,987,336	528	3	53	472	82,842	132.4	20.8	37
Hand truckers	30	5,763,661	757	5	71	681	134,936	131.3	23.4	28
Holdmen	76	3,464,404	1,020	2	87	931	170,401	294.4	49.2	41
Trimmers	18	2,434,003	34	0	1	33	1,588	14.0	.7	39
Warehousemen	21	888,496	162	0	1	161	3,391	182.3	3.8	19
Miscellaneous	103	4,046,128	453	9	12	432	83,304	112.0	20.6	36
Not classified	112	19,366,898	2,696	24	271	2,401	606,841	139.2	31.3	34

[1] Includes time charges for permanent disabilities and fatalities. The standard time-loss ratings for fatalities and permanent disabilities are given in "Method of Compiling Industrial Injury Rates," approved by the American Standards Association, 1937.

[2] The frequency rate is the average number of disabling injuries for each million employee-hours worked. The severity rate is the average number of days lost for each thousand employee-hours worked.

[3] Severity-rate data were not furnished by all reporting establishments. The severity rates shown are based upon reports from 193 establishments.

Most of the other major occupational groups of longshoremen had frequency rates of more than 100, but ranging somewhat below the industry average. Dockmen had an average of 132 disabling injuries for each million employee-hours worked; hand truckers had an average of 131; car loaders averaged 130; and the miscellaneous group, which includes winch drivers, hatch tenders, cargo repairmen, gear and lockermen, watchmen, foremen, and other less numerous groups, averaged 112. Checkers, as might be expected, had a comparatively

low frequency rate—25. Surprisingly, however, the trimmers had the lowest occupational frequency rate, averaging only 14 disabling injuries for each million employee-hours worked.

GEOGRAPHIC DIFFERENCES

The striking differences in the average injury-frequency rates for the four main coastal areas, as shown in table 2, graphically portray the variations in the safety activities carried on in the different regions. All of the regional rates were very high, however, and even the lowest indicates that much more intensive safety work must be done before the industry can take much pride in its safety record.

The lowest regional frequency rate in 1942 was 122 for the Pacific Coast. In comparison with the rates for the other regions, this rate reflects the incorporation of the Pacific Coast Marine Safety Code into the working rules of some ports and the continuous accident-prevention activities of the Accident Prevention Bureau of the employers' association. In the North Atlantic area the average frequency rate of 125 undoubtedly was lower than it would have been if the Maritime Association of the Port of New York had not compiled and distributed its Maritime Safety Code. In the South Atlantic area safety conditions are influenced in some degree by the activities in the North Atlantic area, with the result that the average injury-frequency rate there (160) is not nearly so high as that of the Gulf Coast where this influence is not effective. The exceedingly high average frequency rate of 258 for the Gulf ports clearly reflects the complete absence of safety activites noted in that area during this survey.

TABLE 2.—*Injury Rates and Extent of Disability for Longshoremen, by Region, for 258 Stevedoring Establishments, 1942*

Region	Number of establishments	Number of employee-hours worked	Total number of disabling injuries	Injury rates [1]		Average days lost per temporary total disability
				Frequency	Severity	
All regions	258	42,650,645	5,901	138.4	25.6	34
North Atlantic area	115	23,594,852	2,965	125.7	30.5	35
South Atlantic area	31	1,501,523	241	160.5	18.3	26
Gulf area	38	4,026,487	1,041	258.5	12.3	36
Pacific area	74	13,527,783	1,654	122.3	[2]	26

[1] Includes time charges for permanent disabilities and fatalities. The standard time-loss ratings for fatalities and permanent disabilities are given in "Method of Compiling Industrial Injury Rates," approved by the American Standards Association, 1937.
[2] Not available.

Causes of Accident

Most of the circumstances which lead to accidents in longshore work could be corrected very easily were it not for the industry's two outstanding characteristics—casual employment for short periods and continuous pressure for speed. Comparatively few of the hazards encountered in the industry are such that extensive engineering or mechanical guarding is necessary for their elimination. On the contrary, nearly all of the unsafe physical conditions revealed by analysis of over 1,360 longshore injuries are hazards which are not inescapably

a part of the work, but rather are created by the way in which the work is performed. The evidence that longshore work is carried on with very little consideration for safety is amply borne out by the general pattern formed by the unsafe acts which contributed to the occurrence of these accidents. By and large these unsafe acts represent violations of the most elementary rules of safety; in short, they are the type of unsafe acts which are committed by persons entirely untrained in safety and condoned only by supervisors who are unconcerned with safety. It seems evident that most of the injuries to longshoremen could be avoided if the workers were thoroughly instructed in safety and were given safety-minded supervision.

The difficulties involved in teaching and practicing safety under the existing system of casual employment are readily apparent, but in the final analysis these difficulties differ only in degree from those encountered in many other industries in which much safety progress has been achieved. To ascribe the failure to develop a successful safety program in the longshore industry entirely to these difficulties, therefore, is tantamount to questioning the ability of the longshore industry to solve its own problems as well as do other industries, which obviously is not the case. All of the evidence collected in this survey, however, points to one outstanding fact: neither longshore management nor longshore labor is yet fully convinced that safety pays, not only in moral values but also in the material savings which alone are usually greater than the expenditures necessary to insure safety. Safety can be made a reality in longshore work, but it will require continuous effort and full cooperation between management and the workers' leaders to make it effective.

UNSAFE PHYSICAL CONDITIONS

Hazardous arrangement or procedure.—Nearly 43 percent of all the accidents analyzed resulted directly from hazardous arrangement in and about the workplaces or from hazardous working methods. To pile or stow cargo in such a manner that the piles are not stable and are likely to topple, or to build the piles irregularly so that corners project to be struck by passing trucks or workers, presents not only great possibility of injury but also the probability of material damage to the cargo items. Resort to such piling or stowing methods usually results from a desire to save time, even though it should be obvious that the effort required to rebuild a toppled pile consumes far more time than would be required to build it correctly in the first place. Nevertheless over 13 percent of the accidents were caused by unsafely piled or stowed cargo items.

The exposure of workers to the hazard of being struck by loaded slings while working on the apron of the dock or in the hatchway of the vessel arises largely from the fact that both of these areas are frequently highly congested with cargo, making it difficult for the workers to withdraw from the danger area when the load is raised or lowered. The pressure for speed also frequently results in sling loads being swung over the heads of workers who are engaged in moving in the items for the next load or moving away the items from the previous load. Some sacrifice in operating speed may be necessary to eliminate this exposure to being struck by sling loads. It is axiomatic among safety experts, however, that the safe way of performing any

operation is almost invariably the most efficient way. The fact that nearly 13 percent of all disabling injuries to longshoremen result from exposure to being struck by loaded slings indicates that any attention to the organization of work on the dock apron or in the hatchway, based upon safety, would be very productive in the reduction of longshore accidents.

Defective agencies.—Mechanical defects in the hoisting apparatus itself produced relatively few injuries. Improperly built and improperly slung loads, however, led to a considerable volume of accidents. These included instances in which the load was too heavy, or was improperly attached to the hook, or was unevenly piled in the sling so that articles of cargo spilled out and fell on the workers below.

Slippery, worn, and uneven working surfaces produced nearly 5 percent of the injuries by causing falls and near falls. Some of the slippery conditions were due to ice or snow which might have been made much less dangerous through the liberal use of sand. Attention simply to good housekeeping, such as better maintenance around the docks and prompt attention to the cleaning up of spilled materials, however, would have prevented most of these injuries.

The handling of defective cargo, particularly broken cases with rough and splintered edges, accounted for over 3 percent of the injuries. In large measure these items became defective through improper handling, and the most effective way to avoid the hazard which they present would be to prevent their being broken in the first place. Once they are broken, however, the workers who must handle them should be equipped with protective gloves and aprons.

Unsafe lifting.—The cases included in this category of unsafe mechanical or physical condition include accidents resulting from manual lifting of objects which should have been lifted mechanically, from individuals' lifting objects which should have been lifted by a team, and from the lifting of objects in cramped or crowded quarters which should have been cleared before the operation started. In a few accidents resulting from individuals' lifting what appeared to be excessive weights there was some question whether the injury actually might not have occurred because of improper lifting procedure; when this question could not be specifically answered the case was considered as involving the lifting of excessive weight and was included in this group. A substantial volume of injuries, 15 percent of all cases analyzed, resulted from the unsafe conditions falling in this classification.

Accidents of this type are primarily due to inadequate supervision. In all work involving lifting the supervisor should be required to see that proper space is provided for the operation and that adequate teams or proper mechanical lifting equipment are available.

UNSAFE ACTS OF PERSONS

Taking unsafe position or posture.—Nearly a third (32 percent) of the injuries analyzed were the direct outcome of the injured person's placing himself in an unsafe position or posture. Most prominent of the specific acts in this general group was that of working or standing under or in the path of suspended or moving sling loads. Other unsafe acts in this category involved such actions as working, standing, or walking in front of moving vehicles; riding the sling or the hook; working or walking too near the edge of the dock, deck, or hatchway;

and working in a cramped position. The injuries resulting from these unsafe acts included a high proportion of fatalities and a considerable volume of very severe temporary disabilities. The average recovery period for temporary disabilities in this group was 41 days, as compared with an average of 34 days for all temporary disabilities experienced by longshoremen.

Using unsafe equipment, hands instead of equipment, or equipment unsafely.—Relatively few injuries resulted from using unsafe mechanical equipment or from using mechanical equipment unsafely, but nearly 24 percent of all the cases resulted from the unsafe act of gripping objects insecurely or taking hold of objects incorrectly. These were principally cases in which cargo items slipped from the hands of workers and fell upon their feet.

Operating or working at unsafe speed.—"Shortcutting" accidents—accidents which occurred because someone took a chance in order to save time—produced more than 18 percent of the injuries. These unsafe acts included running; sliding down or climbing ropes instead of using ladders; jumping from piles and platforms instead of climbing down; operating platform trucks at high speed in congested areas; and throwing materials instead of passing or carrying them.

Failure to wear safe attire.—About 5 percent of the accidents resulted directly from the failure to wear safe clothing or proper personal safety equipment. The cases involving failure to wear safe clothing included workers who handled lime while working without shirts and as a result received severe body burns when their perspiration slaked the dust on their shoulders; workers who wore trousers with torn and ragged ends which finally tripped them; and workers who wore loose clothing which caught on projections and in the lines of the sling. In respect to the failure to use personal safety equipment, only accidents in operations for which such equipment is essential were included in this group. Cases in which the wearing of safety shoes, hard hats, and similar equipment would have prevented injury, but would not have prevented the accident, were not considered as falling within this category of unsafe act. The failure to wear safety shoes while removing copper bars from an unstacked heap in which the bars shifted and rolled down whenever one was pulled from the pile, however, was considered an unsafe act of this type. Similarly, the failure to wear gloves when handling wire cables which had broken strands was also considered as a failure to wear safe attire.

In a great many instances the specific unsafe acts which led to injuries were the result of conditions over which the individual worker had little control. In others the individuals could have elected to act safely, but either through lack of safety understanding or because safety seemed unimportant they chose to take a chance. Basically, however, every unsafe act, regardless of how designated, is management's responsibility. As long as the supervisors do not plan the work to avoid unsafe conditions and insure strict observance of safe practices on the part of the workers there are bound to be many accidents and many injuries.

War-Risk Bonuses for Seafaring Personnel[1]

Summary

ORDINARY marine hazards of peacetime are regarded as part of the seafarers' calling. War entails unusual hazards, and when peaceful trade routes become the hunting grounds of enemy submarine and aircraft, a seaman sets forth on what may be his last journey. During the period from October 1941 to March 1943, casualties per stricken vessel averaged a little over 26 percent of the crew's membership and 29 of every 30 casualties resulted in death.[2] From September 17, 1941, to October 31, 1943, 655 seagoing workers lost their lives, 4,133 were reported missing, and 547 were taken as prisoners of war.[3]

This exceptionally dangerous character of the seaman's occupation in wartime is recognized in certain extra payments. Thus, a seaman who has completed a trip to a war zone receives not only his regular wages, but also the temporary wartime emergency increase and a war-risk bonus.[4] The temporary wartime emergency increase was negotiated between employers and the unions during 1940–41 and, unlike the war-risk bonus, it was applied to maritime workers on the Great Lakes removed from possible enemy action as well as to those directly exposed to deep-sea perils.[5]

War-risk compensation depends upon armed conflict and varies with geography. It is entirely different from the penalty rates paid to seamen, under union agreements, in cases in which a ship transports explosives or other dangerous or obnoxious materials. The amount of war-risk bonus paid by coastwise and offshore ship operators varies according to the route of the voyage, the especially dangerous areas traversed, and whether or not the vessel undergoes enemy attack while in port or at anchorage. The bonus may amount to as much as 100 percent of wages.

The Maritime War Emergency Board was appointed by the President in December 1941, following an agreement between shipowners and maritime unions that there would be no strikes for the duration of the war. It is authorized to issue rules and regulations with respect to war-risk compensation, including war-risk insurance. Precedents for such insurance existed in World War I and under union agreements in the years preceding the attack upon Pearl Harbor.

Developments in War-Risk Bonuses Since World War I

As the result of a conference held by the United States Shipping Board, the Atlantic Steamship Owners' Association, and the International Seamen's Union of America, on May 8, 1917, a war bonus of 50 percent of basic wages for the duration of the voyage was decided

[1] Prepared in the Bureau's Industrial Relations Division by Jonas Silver.
[2] Estimates furnished by the Maritime War Emergency Board.
[3] United States Navy, Press release, November 12, 1943.
[4] A somewhat similar arrangement exists in the armed services where foreign service as well as sea and aviation duty carry additional pay.
[5] By a decision of the National War Labor Board the temporary wartime emergency increase was combined with the basic monthly wage paid to Great Lakes seamen under collective agreements of the National Maritime Union of America, C. I. O., and four companies operating fleets of ore boats: Interstate Steamship Co., Inland Steel Co., Bethlehem Transportation Corporation, and International Harvester Co. (Case No. 376, February 2, 1943.)

upon. A 25-percent bonus for coastwise voyages was later made effective by the Shipping Board.

During the Italo-Ethiopian War, the Spanish Civil War, and the Sino-Japanese War, there were no uniform rules with regard to bonuses to seamen on ships of the United States Merchant Marine which carried cargoes to the ports of the belligerents. A bonus amounting to 50 percent of the basic wage was paid to the crew for the duration of a voyage to Italian Somaliland. On the runs to Spanish ports, as well as on voyages to Oriental ports within specified areas, ship operators of Government-owned vessels paid each crew member a bonus of $50, fixed by the United States Maritime Commission. Seamen's unions often obtained a bonus greater than this amount, however, from privately owned and operated lines. The Sailors' Union of the Pacific, for example, secured a bonus of $250 and an additional port bonus of $150 from the Bulk Carriers Corporation, covering a voyage to Spain. The same union arrived at a bonus arrangement with the States Line which called for $150 to each seaman for a voyage to certain ports in the Orient.

BONUS AGREEMENTS, SEPTEMBER 1939–DECEMBER 1941

With the outbreak of World War II, the Neutrality Act banned the shipment of arms and munitions to belligerent countries. Vessels sailing under the American flag could ply only the waters outside the war zones as established from time to time in Presidential proclamations. The waters of the South Atlantic, the Indian Ocean, and the Pacific Ocean remained legally accessible to ships of the United States Merchant Marine. On April 11, 1941, a Presidential proclamation removed from the combat zone the area at the entrance of the Red Sea, and on November 17, 1941, the Neutrality Act was amended to open to American shipping all the hitherto forbidden zones.

By the spring of 1941 German submarine warfare had become so extensive that ships under the United States flag were being sunk as far west as the forty-second meridian of longitude. By October 1941 the United States Navy was escorting merchant shipping. In the Far East, Japanese forces moved south to occupy French Indo-China. German raiders were active in the Indian Ocean. The widening of the theaters of war and the intensification of U-boat activities were reflected in the union agreements through the addition of war-risk zones and increased bonuses to merchant-marine personnel.

A conference of ship operators, called by the Maritime Commission in September 1939, agreed upon a percentage-of-wages arrangement under which the amount of bonus paid would be directly related to insurance rates on the hulls of vessels. Some of the maritime unions objected to the use of wages as a basis for computing the bonus, on the ground that war hazards affected all of a ship's personnel to the same extent and therefore should not be made to vary according to the wages earned. Subsequent union agreements employed both the percent-of-wages and flat-amount methods. In several cases, intervention of the Conciliation Service of the United States Department of Labor and the Maritime Labor Board and later, of the National Defense Mediation Board was necessary before agreement on disputed bonus issues could be obtained between the parties.

Although most bonus provisions in agreements negotiated previous to December 1941 contained a clause permitting the reopening of the bonus issue in the event of a widening of hostilities or an attack upon the vessel, the war-risk zones described in the agreements limited the payment of bonuses to the time during which the vessel was in specified areas. On the Australian voyage, for example, the bonus was generally payable only for the period between the arrival of a vessel westbound at Suva and its departure from Suva eastbound. On voyages to and from Canadian ports on the Atlantic coast, the zone was sometimes limited to the area north of 35° of north latitude.

Some agreements contained provisions for the payment of a bonus if the ship called at specified ports in the danger zones. Thus, an agreement of the National Maritime Union with the company members of the American Merchant Marine Institute, effective October 1, 1941, sanctioned a port bonus of $100 for the localities within the Suez Canal and added a special bonus of $5 per day for each additional day beyond 5 spent in Suez Canal ports. In the event of the loss of a vessel as a result of hostilities, or in the case of seizure of the vessel and the internment of the crew, provision was made for the payment of full wages, bonus, and transportation cost by the company up to and including the day of arrival at a continental United States port.

Efforts to stabilize bonus rates.—In order to stabilize the rates of war-risk bonuses throughout the maritime industry and to correct inequities detrimental to maritime officers as compared to other groups, a conference of shipowners and unions of the licensed officers (National Organization Masters, Mates and Pilots of America, National Marine Engineers' Beneficial Association, and the United Licensed Officers Association) was held in August 1941 under the auspices of the United States Department of Labor and the Maritime Commission. As a result of the conference a formula was worked out whereby bonus rates were set at a uniform percentage of basic wages, to be adjusted up or down in accordance with an index based on the "fair average" of war-risk insurance rates paid on hulls of American flag vessels. This sliding-scale arrangement was incorporated into the agreements of the unions of the licensed officers with the shipowners and remained effective until superseded by the decisions of the Maritime War Emergency Board. It did not apply to the unlicensed personnel, whose unions, until the attack on Pearl Harbor, continued to negotiate bonus rates as well as other terms of collective agreements.

Activities of Maritime War Emergency Board

The Maritime War Emergency Board is composed of a representative from the United States Department of Labor, one from the United States Maritime Commission, and a public member. It was established immediately after the attack on Pearl Harbor at the behest of ship operators and unions in order to obtain adequate information regarding the extent of war risks, to provide a uniform bonus system, and to resolve bonus disputes. The Statement of Principles of December 18, 1941, under which the Board operates, was agreed to by management and labor following a no-strike pledge and contains a statement that "all rights guaranteed to labor and industry with

respect to collective bargaining will be retained."[6] Meetings are held from time to time with an advisory board of representatives of the maritime industry and the unions, in order to ascertain the viewpoints of the parties. The Board has issued a series of decisions and interpretative rulings based on factual situations, all of which are applicable to coastwise and offshore shipping.[7]

DECISIONS OF THE BOARD

First bonus regulations.—The first decision, effective December 7, 1941, provided for bonus rates as high as 100 percent of basic monthly wages (including the temporary wartime emergency increase) but not less than $100 per month for voyages to Europe, to the Mediterranean, to the Indian Ocean and trans-Pacific east of 98° east longitude. The lowest bonus which was established amounted to 35 percent but not less than $35 per month for voyages in waters of the Atlantic, north of the Equator, and westward of a line from St. Johns, Newfoundland, to the intersection of 40° west longitude and the Equator and including Cristobal, Balboa, and the Panama Canal and its approaches; along the east coast of South America, south of and including the latitude of Rio de Janeiro; and from ports of the Gulf of Mexico to ports in the West Indies beginning in a zone outside of the Gulf.

Intermediate rates stipulated 80 percent but not less than $80 per month, 70 percent but not less than $70 per month, 60 percent but not less than $60 per month, and 40 percent but not less than $40 per month for voyages from United States ports to Alaska, Greenland, South American Atlantic ports and Central American ports and Pacific Coast ports of the United States and Canada, respectively. No bonus was paid for voyages within the Gulf of Mexico or Great Lakes or on inland waters of the United States. In addition to a voyage bonus, special port bonuses were paid to each member of the crew in the event that the vessel called at specified ports. Since these original rates were established, the Board has changed the war-risk zones and amounts payable, as well as the kind and extent of supplementary bonuses depending upon the course of military developments. (See table, page 14.)

Method of computing bonus.—Most of the bonus agreements entered into between ship operators and unions of unlicensed personnel stipulated equal monthly sums for all persons covered. Thus, all unlicensed personnel, from boatswain to wiper, received the same benefits. As previously noted, the bonus provided in the agreements of the officers' unions was based on a percentage of the basic monthly wage, with a flat dollar minimum. Among the officers the difference in amount of bonus was considerable, that for a junior officer being only slightly higher than that for the unlicensed personnel.

Under the decisions of the Maritime War Emergency Board, bonuses of unlicensed as well as licensed members of the crew are based on a percentage of basic monthly wages.

War-risk zones.—The Board has ruled that when a ship goes from one war-risk zone to another, the bonus rates shall change as of "the

[6] The Statement of Policy of May 4, 1942, agreed to by the War Shipping Administration and the maritime unions, authorizes the Maritime War Emergency Board to settle other disputes in addition to bonus matters.

[7] The Army Transport Service employs civilian seamen and considers itself bound by the bonus schedules of the Maritime War Emergency Board, although the adjudication of disputes is handled by the War Department.

completed hour local mean time of the day of the crossing of the line demarking the new classification." When the ship departs from inland waters of the western hemisphere,[8] bonus payments become effective at midnight prior to the sailing day. Payment ceases at midnight of the day of entrance into the inland waters from the high seas. No bonus is paid for the time a vessel is at a continental United States port for purposes of safety from enemy action.

Port-attack bonus.—Effective March 1, 1943, an area and port-attack bonus was substituted for the port bonus, for the reason that "the present system of port bonus does not provide a just and accurate port bonus based on the risk involved." This means that instead of receiving $60, $100, or $125 for calls at specified ports, members of the crew now are paid a bonus of $5 a day while the vessel is within specified areas, i. e., Murmansk, Mediterranean, and South Seas. Should a port or anchorage be subjected to enemy attack during the presence of the vessel, each crew member including officers is to receive a port-attack bonus of $125. These bonuses are in addition to the ordinary voyage bonus.

This substitution for the port bonus was made in spite of the fact that the Seafarers' International Union (A. F. of L.), which includes the Seamen's Union of the Pacific, urged its retention and the National Maritime Union (C. I. O.) proposed in addition to port bonus "the payment of a bonus to all vessels which were attacked whether alongside a dock, at anchorage, or at sea," with the alternative of a voyage bonus of $250 per month.

Loss of vessel, internment, repatriation.—If a vessel under the United States flag is lost, the war-risk bonus continues at the rate which was in effect at that time, until the seaman arrives in a port "where he is no longer exposed to marine perils whether due to war or non-war conditions." Where a crew member is repatriated to the United States after becoming separated from his vessel, either as the result of a war peril or an illness or injury incurred in the course of employment, the bonus is payable "from midnight of the day prior to the day the vessel or other conveyance on which he is being repatriated departs until midnight of the day of arrival of such vessel or other conveyance at a continental United States port." However, if he should sign on as a crew member or workaway on the repatriation voyage, no additional bonus is paid him by the operator of the repatriation vessel. No bonus is payable while a crew member is on land nor during any period of detention "either by capture by an enemy of the United States or by internment."

RULINGS BASED ON FACTUAL SITUATIONS

The Maritime War Emergency Board has from time to time supplemented its decisions by rulings based principally on factual situations arising out of disputes over bonus payments. Rather particular distinctions must be drawn in determining, among others, such matters as the bonus wage base, compensable war zones within

[8] According to the Board the "western hemisphere shall include the Hawaiian Islands but shall exclude (1) Iceland, (2) Greenland, (3) Alaska and the Aleutian Islands west of 136° west longitude, (4) the Caribbean Sea and the West Indies (which shall be defined to exclude all continental United States ports but to include the east coast of Central and South America north of the 4th° north latitude and all of the islands in the area bounded on the south by the 4th° north latitude; on the east by the 56th meridian west of Greenwich, on the north by the 28th° north latitude and on the west by the coast of North, Central, and South America)."

extended voyage routes, repatriation bonus, definitions of ports and roadsteads as well as enemy atacks, etc. A brief reference to certain of these rulings will illustrate practical applications of the Board's decisions.

Bonus wage base.—In a case raising the question as to whether the $30 a month additional paid to a radio operator for clerical duties should be included in the basic wages for the purpose of computing war bonus, the Board ruled in the negative on the grounds that the $30 was extra compensation and that voyage bonuses shall not be computed on overtime, penalty time, or other extra compensation, although the temporary wartime emergency increase is specifically included in the basic wage.

War zones within voyage routes.—On voyages to Alaska from Pacific Coast ports, 100 percent, 40 percent, or no bonus may be paid, according to whether the route taken is directly across the Pacific to Alaskan ports west of 136° west longitude, along the coast, or via the inland passage, respectively. The Board made the following rulings to apply where a vessel takes a course which is partly coastwise and partly direct:

Should the vessel deviate from the coastwise course at a point south of 48° north latitude and then proceed directly to the Alaskan port, a voyage bonus of 100 percent would apply during the entire voyage. Should the vessel proceed coastwise to a point north of 48° north latitude but south of 51° north latitude before altering its course and heading directly for the Alaskan destination, the coastwise portion of the voyage would be compensated for at 40 percent up to the point of deviation and from then on at 100 percent. Should the vessel proceed coastwise to a point north of 51° north latitude before altering its course and heading directly for the Alaskan port, the entire voyage would be compensated for at 40 percent until the vessel passed 136° west longitude when the bonus would reach the maximum.

Repatriation bonus.—In a case where the crew members were signed on a vessel under articles which expired while the ship was in a South Sea port and the seamen returned to San Francisco as passengers of the repatriation vessel, a question arose concerning war-risk bonus during their repatriation voyage. It was decided that no bonus should be paid because the crew members separated from their vessels not as a result of a war peril but because of the expiration of the articles. If any of the "crew had signed on articles of the repatriation vessels as workaway or crew members then they would be entitled to their wages and war bonus from the repatriation vessel during their repatriation voyage."

Enemy attack in port or anchorage.—Another dispute turned on the question of what constitutes enemy attack and what is a port or anchorage. The Board held that, in general, enemy attack takes place when bombs or other missiles of a destructive nature come within the limits of a port or anchorage. This does not include "the appearance overhead of any enemy reconnaissance plane * * * the firing of anti-aircraft guns by ground batteries * * * the falling of shrapnel from exploded anti-aircraft shells and the explosion upon contact with the ground of an unexploded anti-aircraft shell." It was also decided that, in general, a port or anchorage is defined to be as specified by authoritative navigation publications.

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Present Bonus Rates

The accompanying table gives the bonuses at present in effect for different routes and areas.

War-Risk Bonuses for Seafaring Personnel on Vessels Flying United States Flag [1]

Bonus	Voyage routes
Bonus of—	
100 percent of basic wage[2]	(a) Trans-Atlantic and extensions thereof (other than voyages cited below), to Europe, Africa, Asia, or elsewhere, outward and homeward.
	(b) Trans-Pacific and extensions thereof (other than voyages cited below), to Asia, Australia, Africa, or elsewhere, outward and homeward, including voyages from Pacific ports of North America to Alaskan ports if vessel proceeds to Alaska directly across the Pacific (west of 136° west longitude), rather than by a route which parallels coast outside of Inland Passage.
	(c) Voyages (other than those cited below), between ports in Iceland, Greenland, North America, South America, West Indies, and Central America.
	(d) Voyages (other than those below), in Gulf of Mexico.
40 percent of basic wage [2]	(e) Voyages (other than those cited above and below), between Pacific ports in United States, Canada, and Alaska, east of 136° west longitude.
	(f) Voyages (other than those below), between Pacific ports in North America (excluding Alaska), South America, and Central America. Pacific entrance to Panama Canal and to Strait of Magellan, and crossing of line due south from Cape Horn shall be considered Pacific ports.
No bonus	(g) All other areas including Inland Passage to Alaska; between ports not south of New York, nor north of Boston via Long Island Sound and not east of 70° west longitude; transiting Panama Canal; Strait of Magellan; Great Lakes and inland waters of United States and inland waters of Western Hemisphere.[3]
Supplementary bonuses [4]	Areas
$5 per day while in service of vessel.	Murmansk: That part of Atlantic and Arctic Oceans east of Greenwich Meridian and west of 60° east longitude and north of 60° north latitude.
	Mediterranean: Mediterranean Sea east of line from Cape Spartel to Cape Trafalgar, including Adriatic and Aegean Seas.
	South Sea: Area bounded on north by 20° north latitude, on east by 170° east longitude, on south by 20° south latitude and on west by 120° east longitude.
$125 port-attack bonus	Each port or anchorage which experiences enemy attack during presence of a vessel in such port or at such anchorage

[1] Maritime War Emergency Board, Decision No. 2A, effective March 15, 1943. Personnel of tugs and small craft on emergency off-shore work receive the same bonus payable to the crew of deep-sea vessels in the same area.

[2] Including temporary wartime emergency increase in each classification.

[3] See footnote 8, p. 12.

[4] The port attack and area bonuses in lieu of port bonus became effective on March 1, 1943, in Amendment No. 10 to Decision No. 7, Revised.

Wartime Wages, Income, and Manpower in Farming[1]

Summary

THE outstanding developments in the field of farm labor during the war are the exceptional increases in the wage rates paid to hired farm labor, the even greater increases in the net income of farm operators, the rise in the average output of farm workers, and the transition from surpluses to shortages of manpower in farm employment.

The weighted average farm wage rate for the country as a whole more than doubled, rising 123 percent from October 1939 to October 1943; the increase between October 1942 and October 1943 was 27 percent. The extent of the increase after October 1939 was uneven, ranging from 227 percent in North Dakota to 73 percent in New Hampshire. The amount of wages per hired farm worker in 1943 was about 121 percent larger than in 1939, as compared with an increase of 191 percent in the net income of farm operators from current operations per farm family worker. The estimated increase in output per farm worker between 1939 and 1943 was 26 percent. The total amount yielded rose sharply after 1939, but the enlarged volume of output was produced by a smaller number of workers, the average number for 1939 being 10,740,000 in contrast to an average of about 10,263,000 in 1943. The maintenance of the farm labor supply and the more efficient utilization of farm labor were facilitated by various public policies designed to aid farmers during the wartime emergency.

Farm Wage Rates in October 1943

The Bureau of Agricultural Economics[2] of the United States Department of Agriculture reports quarterly farm wage rates of 4 kinds, namely, the rates per month with and without board and per day with and without board. Agricultural reporters are expected to include in day wages the estimated daily earnings of piece workers. The average wage rate per month with board in October 1943 was $65.22, and without board, $75.44. The average per day with board was $3.17, and without board, $3.51. A weighted average or composite rate per month, computed on the basis of these 4 rates, gives an average of $69.27 for October 1943. The weighted average rate is computed primarily for use in constructing the index of wage rates but it is also serviceable as indicating broadly the range of rates by region and State. In October 1943, the Pacific States had the highest weighted average rate, the average being $133.10; the lowest rate was $39.90 in the East South Central States. The rate ranged in the several States from $139.75 in Washington to $31.00 in South Carolina (table 1).

[1] Prepared in the Bureau's Editorial and Research Division by Witt Bowden.

[2] Publications of this agency are the chief sources of the data used herein, the main publications used being mentioned in footnotes to the tables. The cooperation of the Bureau of Agricultural Economics and other agencies of the Department of Agriculture in supplementing the published data is acknowledged.

TABLE 1.—*Farm Wage Rates and Percentage Changes, by Geographic Division and State, October 1939 to October 1943* [1]

Geographic division and State [2]	Farm wage rates, October 1943				Weighted average rate per month				
	Per month		Per day					Percent of change—	
	With board	Without board	With board	Without board	October 1939	October 1942	October 1943	October 1939 to October 1943	October 1942 to October 1943
United States	$65.22	$75.44	$3.17	$3.51	$31.13	$54.41	$69.27	123	27
Pacific	118.00	153.30	5.60	7.08	53.20	105.00	133.10	150	27
New England	72.80	108.40	3.86	4.88	48.10	76.80	92.80	93	21
Mountain	85.80	115.40	4.42	5.34	39.00	73.00	91.90	136	26
Middle Atlantic	62.00	94.00	3.56	4.49	37.70	62.90	77.50	106	23
East North Central	60.50	82.10	3.47	4.34	35.70	59.30	71.50	100	21
West North Central	73.40	93.10	4.44	5.54	32.30	64.50	83.00	157	29
West South Central	44.30	61.10	2.43	2.95	24.00	43.30	55.70	132	29
South Atlantic	32.80	45.60	1.87	2.28	21.50	32.90	41.00	91	25
East South Central	31.30	43.20	1.71	2.20	19.70	32.20	39.90	103	24
California	119.00	153.00	5.50	6.90	56.00	105.25	132.50	137	26
Connecticut	74.00	111.00	3.55	4.70	52.50	79.75	93.50	78	17
Massachusetts	76.50	117.00	3.60	4.80	51.25	79.50	97.00	89	22
New Hampshire	66.25	99.00	3.70	4.65	50.75	74.00	88.00	73	19
Rhode Island	75.00	119.00	3.60	4.75	50.50	81.75	96.50	91	18
Washington	118.00	160.00	6.00	8.00	48.50	105.75	139.75	188	32
Utah	93.00	118.00	4.00	4.80	46.50	83.50	93.25	101	12
Oregon	111.00	143.00	5.60	6.60	45.50	101.75	125.00	175	23
Montana	104.00	131.00	5.90	6.50	43.25	87.25	112.00	159	28
New Jersey	71.00	101.00	3.80	4.70	43.25	70.50	84.50	95	20
Idaho	101.00	126.00	5.10	6.30	43.00	82.00	106.50	148	30
Maine	73.50	106.00	4.75	5.50	43.00	75.50	95.50	122	26
Vermont	66.00	94.00	3.55	4.55	40.25	69.00	82.50	105	20
Wyoming	84.00	112.00	4.20	5.40	40.00	73.50	89.25	123	21
Arizona	82.00	123.00	3.50	4.55	39.25	77.00	86.50	120	12
Illinois	65.25	82.50	3.60	4.40	38.25	61.50	74.00	93	20
New York	69.00	96.50	3.80	4.85	38.25	69.00	82.75	116	20
Nevada	90.00	115.00	4.00	5.00	38.00	67.75	93.25	145	38
Iowa	75.25	92.00	4.30	5.20	36.75	65.00	82.50	124	27
Minnesota	74.25	95.75	4.45	5.50	36.75	68.25	83.50	127	22
Michigan	62.50	88.25	3.65	4.70	36.00	60.00	75.50	110	26
Wisconsin	65.25	89.25	3.50	4.40	35.50	64.25	76.00	114	18
Delaware	55.25	81.00	3.60	4.35	35.25	60.25	72.00	104	20
Pennsylvania	50.75	89.00	3.20	4.00	35.25	54.25	69.25	96	28
Maryland	52.00	70.00	3.30	4.10	35.00	58.50	67.25	92	15
Colorado	74.25	104.00	4.20	5.20	33.75	64.50	82.75	145	28
North Dakota	94.00	119.00	6.40	7.90	33.75	84.75	110.50	227	30
Ohio	51.75	72.00	3.25	4.10	33.75	54.00	63.50	88	18
Indiana	53.75	76.00	3.30	4.05	33.00	54.21	65.50	98	21
South Dakota	78.75	101.00	4.70	5.60	32.75	72.25	88.25	169	22
New Mexico	63.00	86.25	3.20	3.70	31.75	53.25	66.50	109	25
Kansas	61.75	84.00	3.85	4.85	28.00	57.75	72.25	158	25
Nebraska	70.50	91.00	4.20	5.10	28.00	60.50	79.50	184	31
West Virginia	40.00	56.25	2.20	2.80	27.50	42.00	53.00	93	26
Oklahoma	50.25	69.00	3.05	3.50	27.00	51.50	65.00	141	26
Virginia	39.50	55.00	2.25	2.90	27.00	43.75	50.25	86	15
Texas	53.50	72.75	2.85	3.40	26.00	50.00	65.50	156	31
Kentucky	40.50	55.00	2.10	2.75	25.25	42.25	50.50	100	20
Missouri	50.00	63.50	2.60	3.30	25.25	43.75	54.00	114	23
Florida	38.50	62.00	2.15	3.00	23.00	38.50	52.75	129	37
North Carolina	38.50	52.00	2.00	2.50	22.25	36.50	46.50	109	27
Tennessee	33.50	46.00	1.70	2.15	20.75	33.50	41.00	98	22
Arkansas	36.00	49.50	1.90	2.45	20.25	37.50	45.50	125	21
Louisiana	30.00	43.50	1.80	2.25	20.25	32.00	40.50	100	27
Mississippi	28.00	39.00	1.60	2.05	17.75	28.75	36.50	106	27
Alabama	28.25	39.50	1.65	2.10	17.00	30.50	37.25	119	22
Georgia	26.00	35.25	1.50	1.90	16.00	26.25	32.75	105	25
South Carolina	25.50	35.25	1.30	1.65	15.75	24.25	31.00	97	28

[1] Data are from U. S. Department of Agriculture, Bureau of Agricultural Economics: Farm Wage Rates, Farm Employment, and Related Data (pp. 40–58, 139, 140); and Farm Labor Report, October 14, 1943 (pp. 4, 5, 7).

[2] Arranged in descending order of the weighted average rate in October 1939, to avoid the effects of abnormal wartime changes.

Comparisons of the October rates in the several regions and States are affected by seasonal variations in farm wage rates. The October rate is normally higher in most of the States than the average rate for the year. In some States, however, particularly in the South, there appears to be normally no seasonal October rise. The comparability of the State composite rates is also affected in some degree by the varying proportions of workers who are paid by the month with board and without board, by the day with board and without board, and on a piece-rate basis. It should be noted, also, that the abnormal wartime conditions have been accompanied by widely different changes in rates in the several States. The States are arranged in table 1 in the descending order of rates in October 1939, because this date preceded the abnormal and uneven wartime changes in rates.

Wartime Changes in Wage Rates

The weighted average wage rate per month for the country as a whole rose from $31.13 in October 1939 to $69.27 in October 1943, or 123 percent (table 1). Regions with average rates above the general average in October 1939 were the Pacific, Mountain, West North Central, New England, Middle Atlantic, and East North Central areas. The only States in these 6 regions with average wage rates lower than the average for the country as a whole in October 1939 were Missouri, Kansas, and Nebraska. The only States in the 3 regions (West South Central, South Atlantic, and East South Central States) with average wage rates higher than the average for the country in October 1939 were Delaware and Maryland.

There were 17 States in which the increases in the composite monthly wage rate were larger, between October 1939 and October 1943, than the increase of 123 percent for the country as a whole. The increase in the State of Wyoming was the same as for the country as a whole. Increases in the 17 States ranged from 227 percent in North Dakota to 124 percent in Iowa. All of these States, with the exception of Florida, are west of the Mississippi River, and the only States in this area with increases below the 123-percent increase for the country as a whole were Arizona, Missouri, New Mexico, Louisiana, and Utah, the rate in each of these States increasing at least 100 percent. The more-than-average increases were predominantly in States which had above-average levels of wages in 1939. The only States with below-average wage levels in 1939 and with above-average increases between October 1939 and October 1943 were Arkansas, Florida, Kansas, Nebraska, Oklahoma, and Texas.

A question arises as to the causes of the exceptionally large increases in farm wage rates in the western regions and in States with comparatively high wages in 1939. A possible cause is to be found in the decentralization of war production and of military camps and war-training centers. Many areas in which there had previously been few industrial enterprises were selected as areas for military training and war production. The development of waterpower in the Northwest contributed to this expansion. The economies in transportation and in time resulting from the production in the West of supplies for the Pacific theater of war were also factors in the expansion of both industrial and agricultural production in the West. The comparative mobility of farm labor in the West contributed, no doubt, to the

effectiveness of industrial competition for labor and consequently to the rise in farm wage rates. Another closely related cause of the relatively rapid rise in rates in the West is to be found in the types of farm workers employed on western farms. Workers in those areas are predominantly experienced in types of work requiring a relatively high degree of skill and adaptability and a relatively large use of machinery. These workers could, therefore, readily adapt themselves to the requirements of such industries as lumbering, mining, aircraft production, shipbuilding, and transportation. Large-scale farming and stock raising in many western areas entail an exceptional degree of dependence on hired labor, and this fact, in combination with the pressure of industrial demand for labor, probably had some effect on farm wage rates. In general, the States which had comparatively large increases in wage rates from October 1939 to October 1943 also had comparatively large increases from October 1942 to October 1943.

Workers hired by the day with board received the largest increase (135 percent) during the 4-year period. The increase for workers hired by the month with board was 131 percent; for workers hired by the day without board, 124 percent; and for workers hired by the month without board, 109 percent. Before 1939, the wage of workers hired by the day without board had lagged, the increase over the parity period of 1910–14 being only 10 percent, whereas the increase in the general farm wage rate was 23 percent.

There are several causes of the exceptionally large increase in farm wage rates during the war. The rise has been accompanied, as will be pointed out later, by still larger increases in the average net income of farm family workers. The competition for labor has operated more effectively to increase farm wages than nonfarm wages, because of the fact that nonfarm wage rates were substantially stabilized in 1942 and 1943, adjustments being limited largely to correcting substandards and to removing gross inequities in particular plants and localities. The policy of exempting farm wage rates from the general stabilization program was adopted because of the lag in farm wages and the grave shortage of farm labor.

Pre-War Lag in Farm Wage Rates

Public policy relating to farm prices and farm income has been based largely on the concept of maintaining farm prices and farm income on a parity or equality with nonfarm prices and nonfarm income as determined by the relationships that existed in a so-called parity period which, for most purposes, is the period from 1910 to 1914. It is convenient, therefore, to make use of the parity period as the base period in comparisons of the trends of farm wages and nonfarm wages as well as farm prices and income.

The changes in the wages of hired farm workers from the parity period to 1919 were not radically different from the changes in the wages of various groups of nonfarm workers. A lag in farm wages had appeared, however, by 1923, and the entire period from 1923 to 1939 was marked by a significant downward divergence of farm wage rates from the wages of other groups of workers. In 1939, the general index of farm wage rates was only 23 percent above the rate in the parity period, and the rate of farm workers hired by the day without board was only 10 percent higher than in the parity period. In con-

trast, the index of the average hourly earnings of railroad section men and extra gangmen was 172 percent higher in 1939 than in 1914. The wages of unskilled road-construction workers were 110 percent higher than in 1915. The union rates of building laborers were 265 percent above the 1910–14 average. The average hourly earnings of factory workers had risen 210 percent over the average for 1909 and 1914; earnings of workers in bituminous-coal, anthracite, and metal mining had risen 159 percent and of steam-railroad workers, 200 percent (table 2).

The wage rates of hired farm workers advanced sharply after1939, but the increases were not sufficient to overcome the lag between the parity period and 1939. The general farm wage rate in July 1943 was 174 percent higher than in the parity period and the rate of farm workers hired by the day without board was 135 percent higher. In contrast, the increases in the wages of the several groups mentioned in the preceding paragraph ranged from 237 to 371 percent.

TABLE 2.—*Changes in Farm Wage Rates and in Earnings of Nonfarm Wage Earners from 1910–14 Parity Period to July 1943*

Wage group	Base period [1]	Indexes						Nature of data
		1919	1923	1929	1939	July 1939	July 1943	
Hired farm workers: [2]								
All groups	1910–14	207	169	180	123	126	274	Weighted average of wage rates per month and per day.
Day workers without board.	1910–14	213	158	158	110	112	235	Wage rates per day without board.
Railroad section men and extra gangmen.[3]	1914	255	237	241	272	272	371	Average hourly earnings.
Unskilled road-construction workers.[4]	1915	205	190	195	210	215	365	Hourly wage rates, Federal-aid projects.
Building laborers [5]	1910–14	160	224	265	301	301	365	Union hourly wage rates.
Manufacturing (all wage earners).[6]	1909 and 1914	229	250	272	310	306	471	Average hourly earnings.
Mining (anthracite, bituminous coal, and metalliferous).	1909 and 1914	215	237	211	259	259	337	Do.
Steam railroads (class I)[3]	1909 and 1914	228	247	268	300	297	351	Do.

[1] The years 1910-14 are defined for purposes of farm policy as a price and income parity period. Lack of complete data for these years on some of the nonfarm wage series makes necessary the use of figures for slightly different periods.

[2] U. S. Department of Agriculture, Bureau of Agricultural Economics: Farm Wage Rates, Farm Employment, and Related Data, Washington, 1943, pp. 3, 4, 40, and Farm Labor Report, October 14, 1943, p. 4. The farm wage rates are monthly or daily rates, but since the hours of work on farms have undergone relatively little change, the comparison with trends of nonfarm hourly earnings is affected only to a slight degree.

[3] U. S. Interstate Commerce Commission, Statistics of Railways, 1915 and 1919, and Wage Statistics, Years 1923, 1929, and 1939, and July 1939 and July 1943.

[4] Data from the Public Roads Administration of the U. S. Federal Works Agency.

[5] Data are for May 15 for all years in the table up to 1929, inclusive. For 1939 the data are for June 1 and for 1943, for July 1.

[6] The index of average hourly earnings in manufacturing was constructed by linking the earlier series for years up to 1939 (as given in the Handbook of Labor Statistics 1941, Vol. II, p. 10) to the current series of the Bureau of Labor Statistics, 1939 to July 1943, using the ratio of earnings in 1939. The definition of manufacturing as used in constructing the new series includes certain industries not formerly classified as manufacturing industries. A slightly different method of weighting was used in combining the industries for the new series.

Farm Costs, Prices, Wages, and Income Since the Parity Period

Major causes of the pre-war lag in farm wages were the comparatively small increases in the productivity of farm labor and the lag in the net income of farmers as well as in the wages of hired farm workers.

The net income of farm operators from current operations per farm family worker was 37 percent higher in 1939 than in the parity period, as compared with an increase of 23 percent in the composite farm wage rate and an increase of 39 percent in the amount of wages per farm worker (table 3). The average net income of farm family workers increased much more rapidly, however, after 1939, than did the amount of wages per hired farm worker. The average net income in 1943 was approximately 4 times as large as in the parity period and the average farm wage was about 3 times as large. The 1943 index of farm wage rates was 263 (163 percent above the parity period).

The trend of the prices received by farmers between the parity period and 1939, as compared with that of prices paid, was unfavorable to farmers. The index of prices received by farmers in 1939 was 8 percent lower than in the parity period and the index of prices paid by farmers was 25 percent higher. The trend was reversed, however, early in 1942, and in 1943 (January to October) the index of prices received by farmers was 87 percent higher than in the parity period, the index of prices paid by farmers being only 63 percent higher. Prices paid include interest and taxes.

The trend of price is sometimes compared with the trend of the wage rate. Price, however, is the amount received or paid for a given unit of output, not the amount received or paid for a given period of work. The price change may therefore appropriately be compared with the change in the amount of wages per unit of output.

TABLE 3.—*Indexes of Farm Wages, Prices, Costs, and Income, 1910–14, 1939, and 1943*[1]

Item	Index numbers (1910–14=100)		
	1910–14	1939	1943
Wages per unit of output	100	97	165
Farm expenses, other than wages, per unit of output	100	130	172
Net income of farm operators from current operations per unit of output	100	95	222
Prices received by farmers	100	92	187
Prices paid by farmers	100	125	163
Farm wage rate index (composite)	100	123	263
Wages per hired farm worker	100	139	307
Net income of farm operators from current operations per family worker	100	137	399
Output per farm worker	100	145	182

[1] The 1943 figures are preliminary estimates based on data of the Bureau of Agricultural Economics of the Department of Agriculture and are subject to change on the basis of complete and revised returns for the year. Data for the earlier years are from publications of the Bureau of Agricultural Economics as follows: Production data, from the Farm Income Situation, September 1942; wages, farm expenses, net income, from Net Farm Income and Income Parity Summary, 1910–42; wage rates and employment, from Farm Wage Rates, Farm Employment, and Related Data; and price data, from the Agricultural Situation, October 1943.

The amount of wages paid per unit of output in 1939 was 3 percent smaller than the amount paid in the parity period. In contrast to this decline in the amount of wages paid per unit of output, farm expenses other than wages per unit of output rose 30 percent. Unit wage costs in 1943 were 65 percent higher than in the parity period, and farm expenses other than wages per unit of output were 72 percent higher. The amount of net income of farm operators from current operations per unit of output was 5 percent smaller in 1939 and 122 percent larger in 1943 than in the parity period.

Wartime Changes in Farm Employment

Agricultural employment normally varies widely from month to month. The number of workers in 1939, as reported by the Bureau of Agricultural Economics, ranged from 8,569,000 on January 1 to 12,470,000 on July 1, with a yearly average of 10,740,000. Employment on January 1 was thus 20.2 percent below the average, and on July 1, 16.1 percent above the average. An even wider range characterizes the employment of hired farm workers. The number on January 1, 1939, was 1,626,000, or 37.3 percent below the average of 2,595,000 for the year, and employment on July 1 was 3,348,000, or 29.0 percent above the average for the year. Changes in employment must therefore be measured by comparisons either of annual averages or of employment in the same months of different years.

Average employment in 1939 was 10,740,000, and the estimate for 1943 was 10,263,000, the decline being 4.4 percent. There was a reduction of 2.5 percent between October 1939 and October 1943 (table 4). The change from October 1942 to October 1943 was nominal, the number rising from 11,921,000 to 11,938,000. The number of family workers, however, was substantially larger in October 1943 than in October 1942, the number rising from 8,653,000 to 8,834,000 (2.1 percent).

TABLE 4.—*Farm Employment, October 1943, and Percentage Change, 1939 to 1943, by Region* [1]

Geographic division	Farm employment, October 1943 (thousands)			Percent of change in farm employment—					
				October 1939 to October 1943			October 1942 to October 1943		
	All workers	Family workers	Hired workers	All workers	Family workers	Hired workers	All workers	Family workers	Hired workers
United States	11,938	8,834	3,104	−2.5	−1.4	−5.4	+0.1	+2.1	−5.0
New England	276	170	106	−1.8	−1.7	−1.9	−3.2	−6.1	+1.9
Middle Atlantic	704	429	275	+1.7	+.5	+3.8	−2.1	−1.2	−3.5
East North Central	1,464	1,152	312	−4.4	−.1	−17.5	+1.3	+1.1	+2.3
West North Central	1,661	1,337	324	−2.6	+.8	−14.5	−.8	+1.2	−8.5
South Atlantic	2,312	1,713	599	−2.4	−4.0	+2.4	−.1	+1.1	−3.4
East South Central	2,171	1,782	389	−1.1	−3.1	+9.0	−.7	+2.4	−13.0
West South Central	2,190	1,616	574	−6.5	−2.2	−16.6	+1.6	+6.2	−9.3
Mountain	486	311	175	+3.0	+8.7	−5.9	+1.9	+5.1	−3.3
Pacific	674	324	350	+3.2	+1.6	+4.8	+1.7	.0	+3.2

[1] U. S. Department of Agriculture, Bureau of Agricultural Economics: Farm Wage Rates, Farm Employment, and Related Data, Washington, 1943 (pp. 157–166); and Farm Labor Report, October 14, 1943 (p. 6).

The number of hired workers fell from 3,268,000 to 3,104,000 (5.0 percent) from October 1942 to October 1943. When both hired workers and family workers are considered, employment in 1943 was substantially stabilized, but at a somewhat lower level than in 1939. There were significant differences, however, in the extent of the change in the different geographic divisions, especially in reference to hired workers. Thus, the number of hired workers was 5.4 percent smaller in the country as a whole in October 1943 than in October 1939, but in the East South Central States the number increased 9.0 percent and in the East North Central States the number declined 17.5 percent. The extent of change from October 1942 to October 1943 also

varied significantly from an increase of 3.2 percent in the Pacific States to a decline of 13.0 percent in the East South Central States.

The variations in the extent of change in farm employment appear to have been brought about by a number of causes. One of these was the varying intensity of agricultural and industrial demand for labor. Another was the shifting of farm production to types of output most needed to meet wartime demands. Estimates of the increase of production by farming areas, between 1939 and 1942, range from 3.7 percent in California to 62.8 percent in the area devoted primarily to small grains (Kansas, Montana, Nebraska, North Dakota, and South Dakota). The estimates for the same period for particular types of farm production range from a decline of 24.6 percent in the production of tobacco to a rise of 96.2 percent in the production of oil-bearing crops.[3] Still another factor tending to cause an uneven change in the number of workers in the different regions is the varying extent of use of labor-saving machinery and methods.

Changes in the Composition of Farm Labor

Significant changes have occurred in the composition of farm labor. It has already been noted that the number of hired farm workers declined more than the number of family workers, notably in certain regions of the country. Thus, in the West North Central States, 14.5 percent fewer hired workers were employed in October 1943 than in October 1939, in contrast to a slight increase in the number of family workers. In the West South Central States there was a decline of 16.6 percent in the number of hired workers and a decline of 2.2 percent in the number of family workers. In the East North Central States, the number of hired workers fell 17.5 percent, and the number of family workers remained approximately the same. The number of farm family workers declined 4.0 percent, however, in the South Atlantic States and 3.1 percent in the East South Central States, whereas the number of hired workers rose 2.4 percent in the South Atlantic States and 9.0 percent in the East South Central States.

Estimates of the agricultural labor force, by sex, are available by month, beginning in June 1940. In that month female farm workers composed only 14 percent of the total farm labor force, but by June 1943 the proportion had risen to 19 percent.

There is evidence also that in agricultural as well as nonagricultural employments, the age composition of workers has undergone significant change. Estimates made by the Bureau of Agricultural Economics indicate that on July 1, 1940, 5 percent of the farm workers were under 14 years of age. The estimated proportion had risen by July 1, 1943, to 9 percent.

On April 29, 1943, a special Congressional appropriation was approved, for use in the placement of workers on farms. During the succeeding 4 months, up to September 1, 1943, the total number of placements was about 1,600,000, some individuals being placed more than once during the period. The number of individuals who registered for work was about 900,000; of these 700,000 were local U. S.

[3] From an article prepared by Celia S. Gody of the Bureau's Division of Productivity and Technological Development, for a forthcoming issue of the Monthly Labor Review.

Crop Corps workers, and included 250,000 men, 150,000 women, and 300,000 boys and girls. Measures were also taken to supplement the farm labor force by bringing in workers from other countries. The number of Mexicans brought to the United States under an agreement with the Mexican Government and working on farms or available for farm work in October 1943 was about 36,000. Similar arrangements were made for about 9,000 Jamaicans and about 4,000 Bahamians. During the 4-month period (from April 29 to September 1), about 50,000 members of the armed forces volunteered for farm work and were given passes of from 1 to 3 days. In the Dakotas, 6,000 soldiers were detailed by the War Department to help save the wheat crop. A small amount of farm work was also done by prisoners of war. The administration of farm-labor policies was transferred to the War Food Administration, created by Executive orders of March 26 and April 19, 1943.

Public Policies Relating to Farm Labor

Public measures for recruiting workers and placing them on farms were greatly extended in 1943 under the special appropriation approved on April 29 and mentioned above in connection with the changing composition of the farm labor force. Under this appropriation, general direction was given by the Federal Government to extensive local mobilization programs. In addition, the Employment Service was expanded and farm-labor camps and transportation facilities were maintained.

Other major public policies included the offering of special inducements to farm workers by deferment from Selective Service and by exemption of farm wages from the stabilization program. Farm workers were given a special deferment status by act of Congress. War unit values were assigned to all crop and livestock products important in war production, these values to be considered by local Selective Service Boards in determining eligibility for deferment. The basic war unit value was defined as the amount of labor necessary to keep one dairy cow, and it was estimated that as a national average about 16 war units should be required for deferment. Farm wages were in general exempted from the operation of the wage-stabilization program, although certain exceptions were made in particular areas and types of work, as when, on April 14, maximum wage rates were established in various counties in California for the harvesting of asparagus for canning and freezing.

Public policy also made provision for aiding farmers in the payment of the higher wartime cost of production. These public policies were reflected in the rise of the ratio of prices received by farmers to prices paid. In August 1943, the ratio was 117 percent of parity. The working out of these policies in a manner favorable to farmers is also indicated by the sharp rise, discussed above, in total net income and in the net income per farm family worker. In addition to the maintenance of farm prices at comparatively high levels, a subsidy program was adopted, one of the main purposes being the granting of aid to high-cost farm producers with a minimum of increase in the

general level of farm prices—a policy giving rise to much conflict of opinion.

The maintenance of farm production at levels required to meet wartime needs was also facilitated by measures for increasing the efficiency of farm labor. It was necessary early in the war to restrict the production of farm machinery, but priorities for the use of materials were later liberalized, especially for the production of repair parts. The 1943 production of farm machinery and equipment, excluding repair parts, was estimated at about two-fifths of the 1940 production, with a large increase scheduled for 1944. The controlled distribution of farm machinery was begun in November 1942, the rationing being administered by State and County War Boards. A machinery-repair program was inaugurated by the Department of Agriculture in 1942. Arrangements were made for farmers to attend schools, conducted by Federal agencies, for training in the maintenance and care of farm equipment. Programs for promoting the sharing of the use of farm machinery and equipment were also worked out. In 1943, restrictions were relaxed on the building of electric-service extensions to farms. This service is viewed as particularly vital in making possible an increase of productivity on small farms. A survey of 220 farms without electric service in one State indicated that the farms, on the 85 miles of line to be built to serve them, would be able to produce 3,100 tons of additional food as a result of the extension of electric service. The results of the various public and private measures undertaken to increase the efficiency of farm labor are apparent in the increase of about 20 percent in farm production between 1939 and 1943, this increase being brought about in spite of a reduction in the average number of farm workers.

Productivity in Electric-Energy Generation[1]

Summary

THE expansion of industrial activity under the war production program has entailed a substantial increase in electric-energy requirements. Greatly increased amounts of electric energy have been consumed in the production of aluminum, magnesium, ferro-alloys, zinc, etc., by electrochemical processes, and in the metalworking, machinery, mineral extractive, textiles, and paper industries. Although fears were expressed at an early date that the supply of electric power might be insufficient to fill war and essential civilian needs, the supply has thus far been adequate. Increased production of electric energy has been achieved largely by more intensive utilization of power-plant facilities; the expansion of capacity since the war began has been relatively small. More complete utilization of generating equipment has been made possible by increased interconnection of power systems, the adoption of "war time," 3-shift plant operation, and minor technical changes which permitted the operation of equipment above rated capacity.

A result of the increase in capacity utilization has been a rise in productivity in generating stations. Output per man-hour advanced about 20 percent between 1937 and 1942 and about 13 percent between 1939 and 1942. Even in 1939, before the impact of the European war was felt, the absolute level of productivity was striking. Nearly 3 million kilowatt-hours of electricity were produced per generating-station employee, an amount equivalent to the electricity consumption of 300 or more wage earners in manufacturing industries.

Scope of Study

The productivity estimates presented in this article compare output of electric energy with the labor employed at generating stations only, and are probably the first available measures of this type. In previous studies made by the Bureau of Labor Statistics [2] and by other agencies, productivity has been measured by the relation between the electric energy generated or distributed and the employment in the entire electric light and power industry. The employment series used in such studies encompassed all classes of employees—personnel at generating and transmission stations, installation men, meter readers, bill collectors, office force, etc. The derivation of the measures shown here was made possible by the cooperation of the Federal Power Commission, which permitted the Bureau of Labor Statistics to transcribe the necessary data from annual company reports.[3]

The companies included in this study are designated by the Federal Power Commission as Class A and Class B privately owned electric utilities. These utilities have annual operating revenues of $250,000 or more, or own electric plant the original cost of which was $4,000,000

[1] Prepared in the Bureau's Productivity and Technological Development Division by Celia Star Gody and Loretta M. Walsh.

[2] Monthly Labor Review, August 1932 (pp. 249–59): Labor Productivity and Displacement in the Electric Light and Power Industry.

[3] Some of the data from these reports are published by the Federal Power Commission in its Statistics of Electric Utilities in the United States.

or more. Class A and Class B utilities account for about 99 percent of the total electric energy generated by all privately owned utilities and for about two-thirds of the total electric energy generated in the United States. Other important producers of electric energy for sale are municipal utilities, Federal and State power plants, and electric railways and railroads. Mining and manufacturing plants produce substantial quantities of electric energy, largely for their own use.

Productivity, 1937 to 1942

The amount of electric energy generated by the utilities included in this study rose 47 percent between 1937 and 1942 and 39 percent between 1939 and 1942 (table 1).

TABLE 1.—*Indexes of Production, Employment, and Productivity for Generating Stations of Class A and Class B Privately Owned Utilities* [1]

Plant and year	Indexes (1939=100) of—				
	Production (energy generated)	Employment	Man-hours	Output (energy generated) per—	
				Employee	Man-hour
All plants:					
1937	94.9	99.1	100.9	95.7	94.1
1938	90.5	97.8	98.5	92.6	91.9
1939	100.0	100.0	100.0	100.0	100.0
1940	109.9	104.3	104.6	105.4	105.1
1941	126.7	115.3	115.9	109.8	109.3
1942	139.3	121.7	123.2	114.4	113.1
Hydro-electric plants:					
1937	108.5	105.8	107.7	102.6	100.7
1938	107.3	104.2	105.0	103.0	102.2
1939	100.0	100.0	100.0	100.0	100.0
1940	103.7	103.1	103.4	100.6	100.3
1941	105.5	106.6	107.1	99.0	98.5
1942	124.6	114.1	115.5	109.2	107.9
Fuel plants:					
1937	88.7	97.7	99.4	90.8	89.2
1938	82.9	96.4	97.1	86.0	85.4
1939	100.0	100.0	100.0	100.0	100.0
1940	112.8	104.6	104.9	107.8	107.5
1941	136.3	117.2	117.8	116.3	115.7
1942	145.9	123.3	124.9	118.3	116.8

[1] The data for the indexes of production, employment, and output per employee were obtained from unpublished company reports filed with the Federal Power Commission. The indexes of energy generated refer to the net output of all Class A and Class B utilities. Energy generated for station use is excluded; energy used in another plant of the same company, however, is included.

The employment indexes refer to the annual average number of workers at generating stations, including all operating and maintenance personnel. Since not all plants reported employment data, the indexes of employment and output per employee were derived from figures for plants accounting for 78 to 83 percent of the total energy generated by Class A and Class B utilities during the period considered. The indexes of output per employee are chain indexes constructed from figures for energy generated per employee in identical plants in successive pairs of years. The employment indexes were derived from the production indexes on the assumption that indexes of output per employee for only those plants reporting both energy generated and employment were applicable to all plants. The indexes of man-hours were derived from employment series and Bureau of Labor Statistics figures for average weekly hours in the electric light and power industry as a whole.

As the table indicates, output per man-hour advanced 20 percent from 1937 to 1942 and 13 percent from 1939 to 1942. With the exception of small declines between 1937 and 1938, output and output per man-hour rose steadily during the period considered. Fuel plants (steam and internal combustion), which produced 72 percent of the total in 1942, experienced a 46-percent increase in production between 1939 and 1942 and a 17-percent gain in output per man-hour. The

changes in hydro-electric plants have been more moderate; output rose 25 percent and output per man-hour 8 percent between 1939 and 1942. In fuel plants, production and productivity have increased each year since 1939, the largest advances occurring between 1939 and 1941. Hydro-electric plants, on the other hand, increased their production only slightly from 1939 to 1941, and output per man-hour declined somewhat between the two years. Between 1941 and 1942, however, energy generated in hydro-electric plants rose 18 percent and energy generated per man-hour about 10 percent.

Estimates of total employment and of annual output per employee, in thousands of kilowatt-hours, are presented in table 2. The total number of workers employed at generating stations, approximately 48,000 in 1942, constitutes less than 20 percent of the estimated total for the electric light and power industry as a whole. Fuel plants employ about 5 times as many workers as do hydro-electric plants.

For both types of generating stations together, 3,330,000 kilowatt-hours of energy were generated per employee in 1942, the equivalent of nearly 4,500,000 horsepower-hours. Output per man-hour was more than 2,000 horsepower-hours. In hydro-electric plants, output per employee was about twice as high as in fuel plants.

TABLE 2.—*Estimated Total Employment and Annual Output per Employee in Generating Stations of Class A and Class B Privately Owned Utilities* [1]

Year	Total number of workers			Annual output per employee (thousands of kilowatt-hours)		
	All plants	Hydro-electric plants	Fuel plants	All plants	Hydro-electric plants	Fuel plants
1937	39,000	7,300	31,500	2,790	5,310	2,210
1938	38,000	7,200	31,100	2,700	5,330	2,090
1939	39,000	6,900	32,200	2,910	5,180	2,430
1940	41,000	7,100	33,700	3,070	5,210	2,620
1941	45,000	7,300	37,800	3,200	5,120	2,830
1942	48,000	7,800	39,700	3,330	5,650	2,880

[1] Based on unpublished company reports filed with the Federal Power Commission. In deriving the estimates of total employment and energy generated per employee, it was assumed that the 1939 levels of output per employee in hydro-electric and fuel plants which reported employment in that year were representative of all plants in each group. The plants included in 1939 accounted for 85 percent of the energy generated by all plants, 82 percent of the total for hydro-electric plants, and 87 percent of the total for fuel plants. The indexes of energy generated per employee and employment shown in table 1 were applied to the 1939 estimates to obtain continuous series for 1937–42.

Factors Affecting Productivity

UTILIZATION OF PLANT CAPACITY

The advance in productivity since 1939 is attributable largely to more complete utilization of power-plant capacity. The expansion of capacity between 1939 and 1942 was relatively small—11 percent for all plants, 2 percent for hydro-electric plants, and 14 percent for fuel plants (table 3). Capacity utilization, i.e., kilowatt-hours generated per installed kilowatt, rose 25 percent in all power plants, 22 percent in hydro-electric plants, and 28 percent in fuel plants during the same period. As in the case of productivity, the greatest increase in energy generated per kilowatt of capacity occurred between 1941 and 1942 for hydro-electric plants and between 1939 and 1941 for fuel plants. Since the equipment in electric-power plants is largely

automatic, little or no additional labor is required when the load increases. A portion of the increased utilization of capacity shown for the industry in recent years, however, represents the entrance into regular operation of standby plants. Such increases in capacity utilization, unlike those for individual plants, do not tend to increase output per man-hour, since additional employees are generally required when such plants enter into regular service.

TABLE 3.—*Indexes of Capacity and Output per Kilowatt of Capacity for Generating Stations of Class A and Class B Privately Owned Utilities* [1]

Year	Indexes (1939=100) of—					
	Capacity			Output per kilowatt of capacity		
	All plants	Hydro-electric plants	Fuel plants	All plants	Hydro-electric plants	Fuel plants
1937	94.9	99.3	93.5	100.0	109.3	94.9
1938	97.1	99.8	96.2	93.2	107.5	86.2
1939	100.0	100.0	100.0	100.0	100.0	100.0
1940	102.0	100.4	102.5	107.7	103.3	110.0
1941	106.5	101.0	108.4	119.0	104.5	125.7
1942 [2]	111.1	101.8	114.2	125.4	122.4	127.8

[1] Capacity for each year was estimated as the average of installed capacity, in kilowatts, at the end of that year and at the end of the preceding year. The figures for 1938–41 are based on data for Class A and Class B privately owned utilities; estimates were made for 1937 and 1942 from Federal Power Commission statistics for all privately owned utilities.
[2] Preliminary.

Unlike industries which have operated beyond "rated capacity" since war began, the electric light and power industry cannot attain utilization of a high percentage of theoretical capacity. Since the demand for electric energy is characterized by wide variation from hour to hour and from month to month, and since the electric energy produced by power plants cannot be stored but must be used as it is produced, the generating capacity of any electric system must be large enough to provide for the maximum possible demand at any time of all its customers combined. Moreover, provision must be made for breakdowns and periodic overhauling of equipment. Increased utilization of theoretical capacity can be achieved only by effecting reductions in reserve capacity, "flattening out" the load curve, and increasing the actual use of equipment above capacity ratings during peak periods. Greater interconnection of power systems, substitution of "war time" for standard time, and 3-shift plant operation have contributed to some smoothing out of the load curve. Although the annual plant factor (the ratio of energy generated to the total which would be generated if all units operated at their rated capacity during every hour of the year) has been increasing, particularly since the war, the figure for all plants was only 49.8 percent in 1942; for hydro-electric plants it was 59.7 percent, and for fuel plants 46.8 percent.[4]

Increased utilization of installed capacity may be achieved by interconnection of power systems over a large area, since the demands of customers over the entire area are likely to be more diversified than the demands of customers of a single system. Moreover, operations

[4] Another measure of capacity utilization frequently used is the load factor, i. e., the ratio of the average amount of energy generated during a particular period to the maximum produced during the same interval.

of hydro-electric plants may be coordinated to take advantage of diversities in stream flow and in water-storage reservoirs. Finally, interconnection permits a reduction in the amount of reserve capacity. If each generating station were independent, it would require reserve capacity equal to the size of the largest generating unit, to provide against breakdown of that unit. Since it is unlikely that many generating units in an interconnected system will break down simultaneously, the amount of necessary reserve capacity may be safely reduced.

Interconnection has been extended both by governmental action and by voluntary action of the utilities. Section 202 (c) of the Federal Power Act grants the Federal Power Commission authority to order interconnection in time of war or other emergency. The voluntary pooling measures taken by the utilities are in accordance with the War Production Board's Limitation Order L–94 (May 1, 1942), which directed the utilities to operate their facilities so as to achieve maximum coordination of power supply. Power pools have been formed in almost all sections of the country. In 1941, for example, the Federal Power Commission initiated the formation of a giant power pool in 17 Southeastern States. In 5 Southwestern States—Arkansas, Oklahoma, Texas, Louisiana, and Mississippi—power systems with a combined capacity of 3,000,000 kilowatts were interconnected. Coordinated operation of 6 large power systems in 5 Pacific Northwest States is estimated to have released the equivalent of 50,000–100,000 kilowatts of new capacity; interconnection of the Southern California Edison Co. and Los Angeles city power systems is reported to have permitted the cancelation of scheduled new generating capacity of 185,000 kilowatts.[5]

The institution of "war time" in February 1942 is estimated to have reduced the peak demand for the year by 1,500,000 kilowatts, and to have saved a billion kilowatts of energy, which would have required the equivalent of 10,000 carloads of coal.[6] Three-shift operation of war plants has also made some contribution to increased utilization of power-plant facilities, since the power load is ordinarily lowest between 11 p. m. and 6 a. m.

Plant factors have been improved in recent years by slight changes which made possible the operation of equipment above rated capacity. Among the changes reported are the use of ventilator fans, reduction of generating-room temperature, increases in the gas pressure in hydrogen-cooled units, and increases in the height of flashboards on dams.[7]

UTILIZATION OF PERSONNEL

Like other industries, the electric light and power industry has had to meet wartime operating problems—shortages of trained personnel, difficulties of obtaining equipment, etc. Some companies have "pooled" their manpower, so that personnel may be shifted where necessary. Utilities have expanded their training programs and have given employees diversified training, so that they may be able to handle various jobs in emergencies. In some cases, office employees,

[5] Electrical World, May 2, 1942 and May 24, 1942.
[6] Leland Olds, Chairman of Federal Power Commission, in a letter to Congressman Lea (reported in Electrical World, April 10, 1943).
[7] Electrical World, various issues

meter readers, and bill collectors have been trained for operating jobs. A few companies have trained women for jobs in generating stations. At some semi-automatic hydro-electric plants, for example, wives of operators have been employed as assistant operators or relief operators.

NEW EQUIPMENT AND METHODS

New equipment installed during the period considered has followed the well-established trend toward larger capacity, improved design, and operation at higher temperatures and pressures. Thus, according to Federal Power Commission statistics, generators installed in all privately owned utilities during 1940 had an average capacity of 24,000 kilowatts, while those installed between 1929 and 1939 had an average rating of 13,000 kilowatts. New equipment has been more automatic, and fuel-handling systems and cooling systems have been improved. Turbines operating under high steam pressure are often superimposed on older equipment ("topping"), so that the steam which passes as exhaust from the new turbine may be used again in the older turbine at lower pressure. Hydrogen cooling, introduced in 1937 and now used in most large generating units, has cut down friction and the adverse effect of heat on the dielectric strength of the windings in the generator. The development of special silicon steels has permitted reduction of losses of electric power in the steel cores of generators.[8] Mercury vapor turbines, though still of minor importance, have operated with the expenditure of only 9,000 B. t. u. of heat energy per kilowatt-hour of electric energy produced, compared with the use of about 11,000 B. t. u. per kilowatt-hour in the best steam plants.[9]

EFFICIENCY IN RELATION TO SIZE OF PLANT

Many of the improvements made in recent years have had the principal object of decreasing fuel costs rather than labor costs, but labor requirements have also been reduced. The use of equipment with higher capacity ratings and the increase in plant capacities have contributed particularly to increased output per man-hour, since little more labor is required for the supervision of large units than for small ones. The economies of size are illustrated in table 4, which shows the amount of energy generated per employee in 1942 by companies with plants in different size groups. These statistics were tabulated by companies and not by individual plants or generating units; i. e., companies are classified in the size group corresponding to the average capacity of their generating plants. Nevertheless, the tendency toward greater output per employee as size increases is well-defined. In hydro-electric plants, companies with generating plants of average capacity below 2,000 kilowatts generated 1,566,000 kilowatt-hours of current per employee; those with plants averaging over 80,000 kilowatts capacity generated 11,483,000 kilowatt-hours per employee. The pattern for steam plants is similar. In companies with average plant capacity below 2,000 kilowatts, annual output per employee was 235,000 kilowatt-hours; in companies with plants averaging more than 80,000 kilowatts capacity, the corresponding figure was 3,596,000.

[8] Temporary National Economic Committee, Hearings, Part 26, 1940.
[9] Edison Electric Institute Bulletin, September 1942.

TABLE 4.—*Output per Employee for Class A and Class B Privately Owned Utilities, by Average Plant Capacity, 1942* [1]

Average plant capacity	Hydro-electric plants				Steam plants			
	Number of companies	Number of plants	Energy generated (thousands of kilowatt-hours)		Number of companies	Number of plants	Energy generated (thousands of kilowatt-hours)	
			Total	Per employee			Total	Per employee
Less than 2,000 kilowatts	55	253	1,204,761	1,566	7	11	11,520	235
2,000 to 4,999 kilowatts	28	275	4,452,467	4,293	24	68	628,718	905
5,000 to 9,999 kilowatts	17	141	4,926,494	5,083	24	56	1,198,655	1,417
10,000 to 19,999 kilowatts	15	180	14,964,719	7,423	43	142	8,397,813	2,441
20,000 to 39,999 kilowatts	8	33	3,604,930	6,984	40	120	12,501,483	2,029
40,000 to 79,999 kilowatts	4	15	4,044,212	8,220	26	73	18,600,261	3,083
80,000 kilowatts and over	7	7	5,328,021	11,483	31	92	58,007,799	3,696

[1] Based on Federal Power Commission statistics for companies which accounted for 87 percent of the total current generated by hydro-electric and steam plants of Class A and Class B utilities in 1942. Companies are classified in the size interval corresponding to the average capacity of their generating plants.

Labor Conditions in the Netherlands[1]

DEPRESSION and the threat of war greatly affected the working people in the Netherlands during the 1930's. Fortunately, the workers had the protection of a comprehensive social-insurance system. An experienced and responsible labor movement cooperating with organized employers maintained the voluntary principle in negotiating terms of employment. The Government instituted broad economic controls which were new to the Dutch economy, and were directed primarily toward sustaining the agricultural life of the country. After the present war had actually started, controls were carried farther, to include the power to requisition labor. When the German occupation forces took over the administration they set out to utilize the existing agencies of Government, labor, and employers to impose the Nazi system, but met with organized and effective opposition. For example, labor abandoned trade-union organization in preference to being blanketed into German industries and into a Dutch version of the Nazi Labor Front.

Plans for post-war reconstruction and the restoration of labor rights are being formulated by the Government-in-exile, which was established in London by the Queen and her ministers following the invasion in 1940. Cabinet office has been given to representatives of the Social-Democratic Party, with which the largest trade-union federation was closely identified in peacetime. The only extensive group of workers over whom the Government-in-exile has jurisdiction at present is composed of seamen in the Dutch merchant marine who escaped when the country fell.

The balance of employment, among agriculture, commerce, industry, and transport, changed gradually between the last and present wars owing to the growth of industry. Industrialization was not accomplished at the expense of agricultural and horticultural pursuits, for the volume of employment in them was increased slightly and production was raised considerably by means of improved methods. The employment of labor in industry grew at such a rate, however, that the fairly static total of manpower in agriculture and related pursuits was dwarfed. From 1909 to 1930 the total population expanded 36 percent and the number of persons engaged in industry, trade, and transport rose by 62 percent. In this same period, the volume of employment in agricultural and related pursuits increased by barely 4 percent and the agricultural population dropped from 27 to 20 percent of the total gainfully occupied.

As is natural in a country having rich colonial possessions and good harbors and inland waterways, trade and transport were important. The country stood eighth among seafaring nations. Industrial production has been varied. Before the war the Netherlands ranked seventh in rayon manufacture. Mineral deposits consist of coal and salt. The annual pre-war output of coal was approximately 13,500,000 metric tons, of which the major share was mined from State-owned pits. All types of machinery were made. Shipbuilding was an active branch of the metal industry. Another important section of industry

[1] Prepared in the Bureau's Editorial and Research Division by Margaret H. Schoenfeld and M. Mead Smith.

processed agricultural and dairy products. Normally the domestic agricultural production included chiefly grains, beans, peas, poultry, eggs, and dairy produce. Cattle and pig raising were well established before hostilities, two-thirds of the land under cultivation in 1935 being devoted to pasturage. Dutch horticulture was among the most advanced in Europe, and the bulb-growing industry occupied a position of world dominance.

In the 1930's, imports were kept at a minimum except for raw materials, such as products from the Netherlands Indies and iron from neighboring European countries. The Dutch Government encouraged self-sufficiency at all stages from farm production to finished manufactured goods under a system of subsidy and expanding public control.

Employment Situation

PRE-WAR EMPLOYMENT

When the 1930 census was taken, the Netherlands had a population of 7,935,565 persons, almost equally divided as to sex—3,942,676 males and 3,992,889 females. It is estimated that the population had increased to 8,728,569 by December 31, 1938, of whom 4,352,878 were males and 4,375,691 were females. The latest estimates place the number of inhabitants at approximately 9,000,000.

Persons classified as gainful workers in the 1930 census aggregated 3,185,816—40.1 percent of the entire population. The ratio of gainfully employed to the total was lower than in Belgium (46.3 percent) or France (52.4 percent) at the time of the last census counts. The ratios in the Netherlands were lower for both males and females, but markedly so for females.

The distribution of the gainfully occupied population in 1930, by industrial status, industrial group, and by sex appears in table 1. No later data are available.

TABLE 1.—*Distribution of Gainfully Occupied Population in the Netherlands, 1930, by Industrial Status, Industrial Group, and Sex* [1]

Industrial status and sex	Total [2]	Agriculture and fishing	Mining	Industry	Commerce, banking, insurance	Transport and communications	Domestic service	No specific occupation
Total gainfully employed	3,185,816	655,190	51,449	1,184,463	447,242	296,737	243,555	32,845
Males	2,418,237	545,524	49,543	1,016,506	334,686	262,439	9,109	32,707
Females	767,579	109,666	1,906	167,957	112,556	34,298	234,446	138
Employers and independent workers	671,937	266,290	764	171,865	173,998	59,020	.....	.....
Males	555,973	215,349	748	157,151	139,111	43,614	.....	.....
Females	115,964	50,941	16	14,714	34,887	15,406	.....	.....
Wage earners [3]	2,239,544	388,900	50,685	1,012,598	273,244	237,717	243,555	32,845
Males	1,694,541	330,175	48,795	859,355	195,575	218,825	9,109	32,707
Females	545,003	58,725	1,890	153,243	77,669	18,892	234,446	138

[1] Data are from International Labor Office, Yearbook of Labor Statistics, 1942.
[2] Includes 167,723 males and 106,612 females in public service, liberal professions, and unknown occupations, for whom data by industrial status are not available.
[3] Wage earners include salaried employees.

TREND OF EMPLOYMENT, 1929–40

The trend of employment in mining, industry, transport, and commerce is indicated by the following index numbers, based on 1929=100. After an increase in 1930, employment dropped and fluctuated at the lower level until a definite rise occurred in the years immediately preceding the outbreak of war in 1939; the 1929 level was never regained, however. The upward trend continued until world trade was disrupted by the war in 1940, when a decline occurred.

	Index [1]		Index [1]
1929	100. 0	1935	84. 2
1930	102. 2	1936	85. 1
1931	96. 0	1937	91. 5
1932	85. 3	1938	95. 4
1933	85. 0	1939	[2] 99. 0
1934	86. 6	1940	[2] 98. 0

[1] Indexes are for wage earners and salaried employees in mining, industry, transport, and commerce, as represented by a few branches only.
[2] Provisional figure.

INDUSTRIAL AND OCCUPATIONAL DISTRIBUTION OF THE LABOR FORCE

The occupational census of 1930 showed that industry accounted for nearly twice as many gainful workers as any other major group, as follows:

	Percent of total gainful population
Industry	39
Trade and transport	22
Agriculture and horticulture	20
Liberal professions, education, public employment, domestic service, etc	19
Total	100

Among the reasons for the decline in the proportion of agricultural to total employment, the increased crop yield ranks high. For example, wheat yielded 29.4 hectoliters [2] per hectare [3] in 1901–10 and 38 hectoliters per hectare in 1921–30. In spite of the apparent decline in the importance of agriculture as shown in the statistics of direct employment, several hundred thousand persons are still dependent on the industry for either their employment or their subsistence. For example, many industries process the raw products grown on Dutch soil. Measures for the betterment of conditions of the agricultural population are important among the continuing policies of the Netherlands Government.

Of the 2,600,314 hectares of land, 929,844 were classed as arable in 1938, 1,336,459 as pasture, 94,045 as gardens and orchards, and 258,482 as forest.

Approximately 56 percent of the land holdings and 51 percent of the land were worked by owners. Of the seven chief agricultural Provinces, tenant farming prevailed in Friesland, Zeeland, and South and North Holland; ownership was most extensive in Overijssel, Guelders, and North Brabant. Small- and medium-sized agricultural holdings predominate, the number of holdings under 10 hectares comprising nearly three-fourths of the total.

[2] 1 hectoliter=2 bushels, 3.35 pecks.
[3] 1 hectare=2.471 acres.

Amsterdam and Rotterdam and their environs are pre-eminent in the industrial life of the country. Under normal conditions the colonial produce market centered at Amsterdam and the transit trade at Rotterdam. Cocoa and chocolate and metal products were manufactured in both cities. Diamond cutting and quinine manufacture were carried on in Amsterdam. Large shipbuilding yards were located near Rotterdam.

In table 2 the gainful population as of 1930 is classified by occupation, and the percent of increase in number of persons attached to each branch of industry between 1920 and 1930 is given.

TABLE 2.—*Gainfully Occupied Population of the Netherlands, 1930, Classified by Occupation* [1]

Branch of industry	Number of persons	Percent of increase over 1920	Branch of industry	Number of persons	Percent of increase over 1920
Earthenware, etc.	40,084	11.9	Agriculture	639,026	2.7
Diamonds, etc.	6,919	[2] 33.9	Fishing	16,164	[2] 17.5
Printing	30,867	20.8	Trade	398,715	46.7
Building	257,466	34.8	Transport	296,737	13.7
Chemicals	25,956	24.4	Banking	28,307	[2] 4.7
Woodworking, etc.	57,748	6.3	Insurance	20,217	21.8
Clothing	135,167	8.9	Independent professions	171,312	20.0
Industrial art	1,383	30.3	Education	85,067	24.4
Leather	42,766	11.3	Domestic employment	243,555	10.1
Coal, etc.	51,449	10.2	Casual labor	32,845	31.9
Metal, shipbuilding, etc.	237,421	21.2	Religion	17,624	48.8
Paper	21,271	27.7			
Textiles	88,295	30.8	Grand total [3]	3,185,816	17.0
Gas and electricity	20,296	2.9			
Foodstuffs and luxuries	218,824	21.5	Population	7,935,565	15.6
Total industries	1,235,912	20.2			

[1] Data are from Report on Economic Conditions in the Netherlands, 1936 (Great Britain, Department of Overseas Trade).
[2] Decrease.
[3] Figure as given in report; total includes 332 gainful workers not accounted for.

REGIONAL DISTRIBUTION OF THE POPULATION

On December 31, 1938, the total area of the Netherlands, excluding water, was 12,712 square miles and the density of population was 686.5 per square mile. Of a population of 8,728,569 persons, 2,138,819 were in South Holland (density, 1,892.2 per square mile), 1,666,368 were in North Holland (density 1,459.9), and 1,019,123 were in North Brabant (density 530.7). Each of the remaining eight Provinces had less than a million inhabitants. A new Province has been in process of formation in accordance with the terms of legislation adopted on June 14, 1918, for the purpose of draining the Zuider Zee. Work was started in 1924 with the expectation that the project would be completed in 15 years and 523,000 acres of land would become available.

Some 94 percent of the population lives in communities having 2,000 or more inhabitants. As of January 1, 1939, the following 7 cities had over 100,000 residents each:

Amsterdam	793,526
Rotterdam	612,372
The Hague	495,518
Utrecht	163,559
Haarlem	137,576
Groningen	120,015
Eindhoven	111,179

FOREIGN WORKERS

Depressed economic conditions in 1934 led to the adoption of legislation (May 16) regulating the employment of aliens in the Netherlands. The Government reserved the right to decree that employers should not employ aliens in general or on certain work without a permit in writing. Employers were made responsible for observance of the requirement, subject to a penalty for each person employed in contravention of the law. Originally, an employment permit issued to an alien merely specified the term of validity but on December 20, 1935, this provision was amended to state that the permit might contain provisions with which the employer must comply. No permit was to be issued in future until the employer had paid a sum to be specified by public administrative regulations.

Unemployment, Pre-War and War

TREND OF UNEMPLOYMENT, 1929–1941

Owing to the great dependence of the Netherlands on trade and on her rich colonial empire, world conditions affect the internal situation there more than in such nearby countries as Belgium and Sweden. Therefore, the depression beginning in 1929 was quickly reflected in a rising volume of unemployment among Dutch workers.

Records of unemployment are compiled in connection with the voluntary unemployment-insurance system (number of insured unemployed) and also by the employment exchanges (number of applications for work). Unemployment statistics from both sources are shown in table 3 for 1929 to 1941, as far as available.

TABLE 3.—*General Level of Unemployment in the Netherlands, 1929–41* [1]

Year	Insured unemployed [2]			Unemployed registered at employment offices
	Number	Percent of total insured	Percent of unemployment [3]	
1929	24,300	7.1	5.9	
1930	37,800	9.7	7.8	
1931	82,800	18.1	14.8	138,231
1932	153,500	29.5	25.3	271,092
1933	163,000	31.0	26.9	322,961
1934	160,400	32.1	28.0	332,772
1935	173,700	36.3	31.7	384,691
1936	169,387	36.3	32.7	414,512
1937	137,674	29.2	26.9	368,909
1938	134,304	27.2	25.0	353,646
1939	112,612	21.7	19.9	[4] 253,261
1940	117,145	22.9	19.8	205,603
1941				126,929

[1] Data are from International Labor Office, Yearbook of Labor Statistics, 1942.
[2] Voluntary unemployment-insurance statistics, excluding agriculture.
[3] Days of unemployment, as a percentage of the total possible working days of insured workers during the month.
[4] Revised series after March 1939.

Unemployment was at its peak in 1935 and 1936, when it reached 384,691 and 414,512, respectively.

In a gainful population approximating 3,000,000 persons a registration of over 400,000 was viewed with alarm. In 1941, the regis-

tration had declined considerably from the 1940 level, totaling 126,920 persons. From fragmentary returns covering 1942 and 1943 it appears that registered unemployment was reduced still further, to 30,000 (revised series), under the forced-labor program of the German occupation forces. For the period following the invasion, however, the statistics of registration are not comparable with those for earlier years, as many unemployed workers refused to register for work that would aid Germany.

MEASURES TO COMBAT UNEMPLOYMENT

The Government assumed leadership in the years of economic depression in stimulating action to aid, train, and place unemployed labor. Considerable amounts of money were expended for public works and assistance. The land-reclamation program, which was originally for the purpose of providing dykes against the danger of floods, was the outstanding public scheme. Extension of land-reclamation projects served a twofold purpose; it gave work to the unemployed and provided new land for settlement by the surplus agricultural population.

An attempt was made to keep public subsidy at a minimum in private employment. However, temporary subsidy was granted to employers engaging workers for the purpose of training them and giving them jobs when the training was completed. In agriculture and horticulture employers were subsidized if they employed relief workers in addition to their regular staffs. Attempts to spread work by substituting hand labor for machinery were made in threshing on Zeeland farms, again with Government subsidy, but the plan was abandoned as it did not increase employment markedly.

The State appealed to employers several times, suggesting means for dealing with unemployment. Included was a plan for spreading work by employing two persons half time in place of one person full time. Training and retraining of workers was urged. Also, employers were asked to cut down requests for overtime permits to the absolute minimum, and the granting of such permits was further limited.

A better distribution of the available employment was made possible under the law of May 28, 1937. In certain classes of work generally carried out by men before January 1, 1934, the authorities were empowered to prohibit the employment of women or girls or to fix the proportion that they might form of the total employed. If the proportion of men aged 25 years or over was below the usual ratio, the proportion might be fixed.

The Minister of Social Affairs further attempted to direct labor into domestic service where employees were needed. All members of an unemployed person's family were required to register if capable of work and over 15 years of age.

Courses for the unemployed were organized at all educational levels, and work camps were opened under Government supervision.

Unemployed juveniles were given particular attention. In training centers the policy of recruiting young persons with previous vocational training was abandoned for one of recruitment and training of untrained young people. Opportunity was also offered for wholesome work on farms and various kinds of recreation.

Owing to the disorganization of the labor market incident to mobilization when war broke out in 1939, a special committee was established in the Ministry of Social Affairs to coordinate the work of existing placement agencies and to facilitate the solution of employment difficulties. In building trench shelters for civilians, unemployed labor was utilized and was paid from relief funds. The effects of war varied over the country and were particularly severe in Amsterdam and Rotterdam, where shipping fell off. In The Hague the closing of foreign commercial agencies and the disorganization of handicraft enterprises owing to shortage of materials resulted in workers' being laid off. Government policy was to provide public works adapted to a continually changing situation.

Bringing workers and jobs together was still a problem as late as January 1940. At that time the Minister of Social Affairs approached local authorities with a plan for complete registration of young men between the ages of 14 and 21 years, who were not at school, with a view to placing them and aiding employers.

UNEMPLOYMENT AFTER THE INVASION

Following the German invasion, industrial activity was seriously disrupted and unemployment mounted. The unemployed were estimated as totaling 300,000 soon after the invasion and 500,000 after demobilization was completed. The German civil administration made a vigorous effort to reorganize the industrial system, along with the social order, in accordance with the Nazi pattern. To reduce unemployment the economic commission proposed a large-scale reconstruction program but, as the plans were worked out, Dutch labor was forced to work for the enemy.

Control of Labor and Industry

In two periods during recent years the Netherlands Government has adopted extraordinary economic control measures, owing to the international situation. Previously, special controls had been limited to ownership of public transport, telegraph and telephone facilities, and certain productive resources, such as coal mines.

DEPRESSION CONTROLS

As plans developed, agriculture became a highly controlled industry, with the authorities planning production. Under the pressure of those depending on the land for a living, whose position was seriously impaired during the depression of the early 1930's, the Government enacted special legislation whereby subsidies were granted either directly to the growers of farm commodities or to the exporters. Added income also accrued to the farmers through placement of an extra levy on domestic sales of agricultural products. Imports that would compete with domestic crops were restricted. At the same time limitations were placed on the crops to be planted and the acreage to be devoted to them. Efforts were made to reduce the output of crops for which the price had dropped owing to overproduction.

On August 13, 1933, the Agricultural Crisis Act became effective. Financial administration of all previous measures that had been adopted for the support of agriculturists, horticulturists, and dairy farmers was combined in a single fund—the Agricultural Fund. Simultaneously with the program for ameliorating the agricultural situation, under Government guidance, a movement toward reorganization of production and rationalization of industry was being carried out. Industry did not receive aid proportionate to its national importance, however, and such assistance as was given to industry on the home front under the amended Import Restrictions Act also served as a means of helping agricultural exports.

Throughout the period during which the control of agriculture and industry was being exercised, the desire to maintain the gold standard dominated the decisions made. In spite of national sacrifices, such as in lowered wages and salaries, the country was finally forced to devalue the currency in September 1936. This action was accompanied by a new set of controls which the Government had promised to institute.

In order to avoid inflation, the legislation enacted gave the Government power to fix maximum prices for commodities, services, and rents. Price rises for wheat, flour, bread, margarine, cooking oil, milk, and sugar were prohibited. Limited price increases were allowed for potatoes, butter, eggs, and certain other commodities. In this way a buying rush was avoided. The price controls expired on March 30, 1937, as the Government intended to postpone the price rise only until wages were adjusted.

The pre-war movement toward Government direction of economic life was climaxed in 1938, when the Constitution of the Netherlands was revised to permit the State to create regulatory bodies in certain professions, trades, or industries. Under the Industrial Establishments Act, the Government was granted permissive rather than mandatory powers to control the establishment of new industrial enterprises and increases in the capacity of existing establishments.

REQUISITIONING OF LABOR

On December 19, 1939, several months before the invasion, the commander-in-chief of the Dutch land and air forces issued a decree regulating the labor services that the civilian population would be required to undertake for the military authorities in those parts of the country in which a state of war might be proclaimed. With the exception of high officials, professional workers, and other special classes, all men aged 18 to 59 years might be called for personal service on certain types of defense work.

In March 1942, all Dutch seamen under age 60 were drafted by the Government-in-exile to serve aboard Dutch merchant and naval vessels. This action was followed on June 6, 1942, by the requisitioning of all shipping under the Netherlands flag for the use of the British and American Governments. The ships were placed under the British Ministry of War Transport until 6 months after the conclusion of hostilities.

Requisitioning of labor by the enemy.—Most of the Dutch workers have been drafted into German war industry either in their own country or in the Reich, by threats or promises of the occupation

forces. According to advice received in mid-1943, over 400,000 male workers were deported to Germany, under contract to work in mines, industries, and on farms. Those who refused to go were disqualified from receiving the unemployment benefit. The draft of labor continues and women are being included among the workers sent to Germany. In addition, employees are sent to Finland, Belgium, France, and Norway.

An order dated February 28, 1941, prevented workers from changing their jobs and provided compulsory service for the Dutch. Many citizens were drafted for guard duty over German army sign posts to prevent their defacement. Although the order applied to females as well as to males, women workers were not requisitioned until August 1942 when a special decree was issued.

On February 22, 1943, labor conscription was announced under an order of the German commissioner. All Dutchmen were warned that refusal to cooperate would be punishable by death. The commissioner was empowered to "take all measures he considers necessary" in dealing with labor and industrial production. Both males and females were required to register with employment exchanges. All men not in Government service, whether German or Dutch citizens, were covered, as well as women between the ages of 18 and 40. The earlier attempts to assign workers on the basis of records of various kinds had been prevented by mysterious fires and the disappearance of files.

Opposition continued even after official conscription was introduced. For example, of the young workers ordered to report for compulsory labor service, only one-quarter did so and most of them had received certificates of exemption from service. The Germans had issued the certificates liberally to encourage registration, but withdrew many of them when the workers reported, and took the youths into service.

The German authorities also offered dismissal compensation to certain unemployed persons, thereby expecting to induce them to register and thus become liable to conscription. The plan was adopted in connection with closing down nonessential business and industry. A worker losing his job because of such a shut-down was to receive one-twelfth of a year's wages. The dismissal payment was to be made 1 month after the worker lost his job, provided that (1) he produced a certificate from the labor office stating that he could not obtain employment and (2) he was not covered by a pension agreement.

Another measure to eliminate opposition and increase effective manpower was taken in September 1943, when employers were authorized to impose heavy fines on workers for absenteeism and slow-downs. For workers earning less than Fl.4 daily, a fine of up to Fl.4 might be imposed; for higher wages the fine might be 25 percent of the weekly earnings. The workers had no right of appeal from employer decisions.

Wages, Hours, and Working Conditions

GENERAL TREND OF WAGES, 1929–40

Although attempting to maintain the gold standard and to follow a general policy of economic self-sufficiency, the Netherlands was forced into foreign competition in order to sell certain surpluses and to obtain raw materials. Accordingly, in an attempt to reduce cost

of production a policy of wage reductions, rationalization, and technical improvement was introduced into industry during the 1930's. However, it failed to reduce production costs sufficiently, and in September 1936 the Netherlands finally was forced to promulgate new monetary regulations which had the effect of devaluing the florin. Wages increased slightly from 1937 to 1939 but never reached the 1929 level.

Immediately before devaluation the florin was high in relation to its par value of 40.20 cents in United States currency, having an exchange rate of about 68 cents in August 1936. Following devaluation, its value on the international exchange dropped to about 53 to 55 cents in United States money, when the last quotations were given before the invasion of the country.

After the 1940 invasion the German administration, tampering with the Dutch currency law of 1937, reduced the currency to complete dependence on the mark and opened the way to unlimited inflation. Although an impression of prosperity was created, actually the workers suffered from a progressive reduction in rations during 1942 and from fantastic black-market prices resulting from the shortage of commodities.

The trend of wages in specific industries, for selected years between 1929 and 1939, is shown in table 4. Wages for female workers were on the whole approximately half those for males.

TABLE 4.—*Average Earnings of Adult Males in the Netherlands, by Industries, Selected Years, 1929–39* [1]

Industry and class of worker	Wages (in florins)						
	1929	1930	1933	1936	1937	1938	1939
Coal mining:							
Underground workers, per day	5.75	5.85	5.14	5.03	5.25	5.50	5.59
Surface workers, do	4.13	4.28	3.92	3.84	3.99	4.15	4.19
Metals industries:							
Skilled workers [2], per hour	.74	.75	.63	.55	.58	.63	.66
Semiskilled workers [2], do	.64	.64	.55	.50	.52	.55	.57
Unskilled workers [2], do	.56	.57	.50	.45	.47	.50	.51
Building trades (Amsterdam):							
Masons [3], do	.98	1.02	.81	.66	------	------	------
Carpenters [3], do	.91	.92	.78	.63	.63	.66	.66
Masons' assistants [3], do	.87	.88	.73	.60	.58	------	------
Harbour work (Amsterdam): [4]							
Dockers, per week	35.88	35.42	31.05	29.94	31.20	32.71	32.64

[1] Data are from International Labor Office, Yearbook of Labor Statistics, 1939 and 1942.
[2] Workers 21 years of age and over.
[3] Workers 21 years of age and over. From 1936 onwards, the data include also other building assistants.
[4] From 1934, the figures are no longer strictly comparable with the former data.

COST OF LIVING AND REAL WAGES

As a crude measure it may be assumed that a florin is equivalent to its pre-devaluation value of 40 cents in United States money. On this basis the pre-war daily average money wage on which industrial workers lived was approximately $1.50.

Within the Netherlands, the cost of living fluctuated considerably between 1929 and 1940, as shown for the city of Amsterdam in the statement following. The composite index of living costs dropped from 1929 to 1936—the year when the florin was devalued—and

then rose slightly until 1940, when the influence of war raised the cost of living sharply (from an index of 83 in 1939 to 92 in 1940).

	Index [1]		Index [1]
1929	100	1935	81
1930	96	1936	[2] 79
1931	90	1937	82
1932	84	1938	83
1933	83	1939	83
1934	83	1940	92

[1] Data are from International Labor Office, Yearbook of Labor Statistics, 1942.
[2] Revised series beginning in 1936.

As shown in table 5, which gives average money wages and index numbers of money and real wages, the position as to real wages was somewhat better throughout the pre-war years than in 1929 (i. e., money bought more goods). It was not until 1940 that the balance between money wages and cost of living placed workers in a less favorable position respecting real wages than in 1929.

TABLE 5.—*Daily Earnings in Mining, Industry, Transport, Commerce, and Administration,[1] in the Netherlands, 1929–41* [2]

Year	Money wages (in florins)	Indexes (1929=100) of—		Year	Money wages (in florins)	Indexes (1929=100) of—	
		Money wages	Real wages			Money wages	Real wages
1929	4.20	100	100	1936	3.54	84	[3] 107
1930	4.23	101	[3] 105	1937	3.52	84	[3] 103
1931	4.22	100	[3] 112	1938	3.54	84	[3] 102
1932	4.07	97	[3] 115	1939	3.56	85	[3] 103
1933	3.92	93	[3] 112	1940	3.70	88	[3] 98
1934	3.77	90	[3] 108	1941	3.93	94	.....
1935	3.64	87	[3] 107				

[1] Accident insurance statistics.
[2] Data are from International Labor Office, Yearbook of Labor Statistics, 1942.
[3] Numbers relate to a single town.

PRE-WAR WAGES BY INDUSTRY

Agricultural wages.—Between 1919 and 1929 agricultural wages rose considerably, owing to the favorable position of agriculture and the steadily growing trade-union movement, but wages could not be considered high, when compared with the cost of living. In the depression years of 1929 to 1934, a number of employers succeeded in cutting pay substantially. Under the emergency legislation, however, the wage decline was halted in 1934, as the number of wage agreements concluded increased and some wages were fixed by Government arbitration. In 1936, wages were still far below the 1929 level.

More than 60 percent of the population working in agriculture and horticulture in the middle thirties consisted of wage-paid labor. In June 1938, wages were governed entirely by local agreements. Representative rates of minimum hourly pay for adult males in general farming were from Fl.0.25–0.30 in 1938. Wages in kind were of comparatively little importance.

Wages of factory workers.—In June 1938, no general wage agreement existed between employers and factory workers applicable to the whole of the Netherlands, but there were many local agreements

between individual factories or small groups of factories and the labor unions. Minimum weekly wage rates set by representative agreements were Fl.15.50–19.70 in brick factories and Fl.26.00–30.00 in artificial-fertilizer factories.

Seamen's wages.—In July 1939, collective agreements between shipowners and seamen set wages for the deck and engine-room staffs of vessels of 400 tons gross or over, and for the catering staff of cargo vessels. Some of the wages given were minimum rates; others were fixed rates. They ranged from Fl.102 a month for boatswains and carpenters to Fl.22.50 for boys, inexperienced messroom boys, or inexperienced cook's mates. If the cost-of-living index rose or fell by a certain percentage, wages were to be readjusted.

War-risk bonuses for seamen were instituted by an agreement concluded on September 12, 1939, between the union of masters and officers and the transport workers union and the federations of Netherlands shipowners.

FACTORS AFFECTING WAGES

To show the full pre-war wages in the Netherlands, it is necessary to take into account the existence of family allowances, paid vacations, and social-insurance payments, as well as the direct pay for work done.

On December 23, 1939, the Family Allowance Act was passed, introducing a general family-allowance scheme which began to be put in force under certain provisions of an order of February 22, 1940. Allowances were to be financed solely by employers, and the act required every employer with one wage earner or more in his service to make contributions. Any worker whose family included more than two children under the age of 15 years became entitled to an allowance, the amount depending on the amount of the worker's wages.

No law has been enacted in the Netherlands to establish a general system of paid vacations. However, a considerable number of workers normally receive holidays with pay under the terms of collective agreements. In June 1937, 861 agreements included provisions relating to annual holidays, covering 199,736 persons or 71 percent of all industrial workers covered by collective agreements. The great majority of the agreements provided for payment of wages during holidays, while some provided a special allowance in addition to normal wages.

Vacations with pay for seamen were provided for by collective agreement solely, until the act of June 14, 1930 (respecting seamen's articles of agreement) came into force in 1937. The act provides for 15 consecutive days' leave, or 2 periods of 10 days, for masters; and 7 consecutive days' leave, or 2 periods of 5 days, for all other ranks and ratings. However, seamen engaged by the voyage are not entitled to paid leave under the act and since, in practice, seamen generally are engaged by the voyage the act does not improve the seamen's position as much as it seems to. Where terms of collective agreements are more favorable than those under the act, they may be substituted. The most recent agreement between shipowners and the Central Trade Union of Transport Workers (in 1939) provides for a paid vacation of 6 working days after 1 year's unbroken service with the same company—apparently covering cases where the 7-day leave required by the act does not apply.

Social insurance is financed in different proportions by Government, employer, and employee contributions. Although contributions constitute a deduction from wages, the worker normally secures a return in excess of the payments made.

REGULATION OF WAGES

Pre-war regulation.—Wages in the Netherlands, prior to German occupation, were regulated almost exclusively by collective agreement and, accordingly, legislation for the regulation of pay was practically nonexistent. The single exception was the regulation of home-workers' wages.

On November 17, 1933, the Homework Act (also known as the Act of 1934) was passed and became effective in 1936. The act required wage books for all home-workers and provided for the establishment of central and local committees to draw up wage scales. The Labor Inspection Service reported that in 1937, observance of the act left much to be desired. Except in the clothing industry, home workers were recruited mainly from the unemployed or persons in receipt of low wages who wanted to increase their earnings; wages were generally low and as a result hours were often very long.

Wartime rates and regulation.—The only data on wartime wages are for seamen. An agreement effective August 1, 1942, increased seamen's pay by conversion of the former savings premium into part of the basic wages, and by increases in the basic wage, more especially for the lower ratings. An important improvement for officers was the provision of increased pay when promotion in rank is slow. The war bonus for officers and ratings was doubled. Standard monthly rates for officers ranged from Fl.349 for a chief engineer with a C certificate to a minimum of Fl.91 for an assistant engineer without certificate. Increments for seniority, long continuous service, and long voyages were provided. Ratings' standard monthly wages ranged from a minimum of Fl.164.50 for a certificated ship's cook to Fl.60 as the beginning wage of an ordinary seaman. Increases for long voyages were provided.

A decree of the Government-in-exile, effective January 1, 1943, fixed the rates of "waiting pay" and allowances payable to officers and ratings of the merchant marine. The decree was made in pursuance of the Compulsory Service Order of March 11, 1942, which made merchant seamen liable to compulsory service. If at any time the seamen cease to be liable to such service and suitable work cannot be found for them, they are entitled to free food, lodging, medical treatment and nursing, and to waiting pay until such time as they are again employed.

Under a decree of December 19, 1939, making provision for the calling of the civilian population to military or defense work, remuneration was to be on the basis of the wages paid in the district concerned for work of a similar character. Mobilized officials' pay was to be based on the salary payable to them in their civilian capacity.

By an order of May 17, 1940, the German commissioner for the occupied territory of the Netherlands froze wages. On November 28, 1940, modifications were made. No collective agreement may contain clauses providing for a change in wage rates on account of circumstances not "connected with the relationship between em-

ployer and employed." Any provisions for wage increases must have the authorities' approval.

The Secretary-General of the Ministry of Social Affairs is authorized to fix wages not governed or in his opinion improperly governed by collective agreement, if he considers it "necessary in the workers' interests."

HOURS OF LABOR

Pre-war hours.—Within the framework of the law, hours of labor, like other conditions of employment, were established almost exclusively by collective agreements between employers and employees.

The only information issued showing pre-war average weekly hours worked in industry (excluding building) is for Amsterdam, as follows:

	Weekly hours	*Index numbers*
1935	46. 9	100. 0
1936	46. 7	99. 6
1937	47. 1	100. 4
1938	46. 8	99. 8

Averages of the standard or scheduled weekly hours for industry show that, from 1929 through 1938, the standard hours remained, with minor deviations, close to the legal 48.

Hours provided in the agreements for agriculture usually vary according to the season of the year and local custom. A report from the United States consul early in 1938 stated that the 12-hour day was usual. In winter, working time was generally limited to the hours of daylight.

The 1939 agreements between shipowners and seamen provided for a 9-hour day. In port, the day was to be 8 hours; Saturday was to be a 5-hour day.

Wartime hours.—Seamen are the only workers for whom information is available regarding the hours worked in wartime. The agreement (effective August 1, 1942), made between employers and seamen who had escaped before the invasion, reduced standard hours of deck and engine-room ratings to 56 per week. In port, hours are 8 per day, 5 on Saturday, and any necessary for routine work on Sunday. Maximum hours for the catering staff are fixed at 12 per day, with special arrangements in port.

Pre-war regulation of hours.—Basic legislation for the regulation of hours was enacted in 1919. The act provided for a maximum 8-hour day and 45-hour week in factories and workplaces. Deviations could be permitted by public administrative regulation. The date on which the act would become effective was to be set by the Crown. In bakeries and offices the 8-hour day and 45-hour week were also to be established. Outside these establishments and the above-mentioned factories and workplaces, hours were not to exceed 10 a day and 55 a week. Hours in shops, pharmacies, cafes and hotels, and nursing institutions could be set by public administrative regulations but could not be less than 8 a day and 45 a week. On May 20, 1922, the act was amended to provide an 8½-hour day and 48-hour week. The new maximum was substituted in each case to which the 8-hour day and 45-hour week had formerly applied. No general hours legislation has been enacted subsequently.

Overtime.—Under the Labor Act of 1919, employers are required to obtain permits for any overtime worked by their employees, but

this law does not provide for increased rates. The amount of overtime that may be worked in certain industries is limited. For example, in offices, total hours may not exceed 10 a day and 55 a week, including overtime.

Specific overtime provisions in particular industries are established by collective agreements. A representative agreement in 1934 provided that overtime might be worked during not more than 13 weeks in the year, at 5 hours per week. In general, overtime might not be worked in more than 6 consecutive weeks. Before starting such overtime, the labor inspector and the employers' and workers' organizations must be notified. Overtime was to be paid by an increase in wages of 15 percent. The increase for overtime worked between 5 and 7 a. m. and between 7 and 9 p. m. was 25 percent; for that worked between 9 p. m. and 5 a. m. the increase was 50 percent; and for Sunday work the rate was increased 100 percent. Certain work (including work to make up for holidays and to make repairs) was not deemed to be overtime.

In the latter part of the depression, efforts were made to cut down on overtime permits, in order to ease unemployment. Statistics for 1937 indicated, however, that in spite of closer scrutiny of applications, permits granted had increased since the year before and numbered 26,135, as against 22,892 in 1936.

Overtime at increased rates could be required of seamen, according to the 1939 agreements. The rates were fixed, varying with the nature of the work; at the close of 1942, they were raised.

Women and young persons.—The Labor Act of November 1, 1919, lays down minimum standards for the employment of women and young persons. Under its terms, specific provisions are made regarding health and safety standards; the employment of children under the age of 14 years or still bound to attend school is prohibited; and employers are forbidden to employ a woman 2 weeks before and 6 weeks after childbirth. In addition, the law authorizes the control of work that might be injurious to women and young persons, through general administrative regulation.

Restrictions on night work in factories and workplaces apply to males as well as females. In general, night work is prohibited between the hours of 6 p. m. and 7 a. m. Young persons under the age of 18 years, in work outside a factory or workplace, shop, office, pharmacy, cafe, hotel, or nursing institution, are forbidden to work between 7 p. m. and 6 a. m.

Labor and Employer Organizations

PRE-WAR DEVELOPMENT

Freedom of association and the right of assembly are constitutional rights of Dutch workers, acquired in 1848. The right of association applies to governmental and private employees alike and to organizations of employers. It is stipulated that the law shall regulate and limit, in the public interest, the exercise of organizational rights. During peacetime, both employers and employees had organized to a considerable extent.

The trade-unions have developed along both craft and industrial lines, depending upon conditions within the several industries and

localities. The tendency was to organize into unions according to political or religious affiliation. The six major trade-union federations were Social-Democratic, Catholic, Protestant, neutral, independent, and syndicalist. Political or religious groupings among employers were less frequent. However, employer organizations were federated into central bodies for the purpose of defending their trade interests against those of the workers.

Although there was no compulsion to join trade-unions, membership was encouraged by reason of the provisions of certain labor laws. For example, the State granted subsidies to unemployment-insurance funds maintained by trade-unions. A further stimulus to union membership existed in the law covering collective agreements whereby the terms of a contract entered into by a majority in an industry may be extended to persons in the same industry who were not parties to establishing the terms of the original agreement. No contract may include any provisions whereby employers or workers are forced to join an organization or which cause unequal treatment of organized and unorganized workers. Nevertheless, after this legislation became effective, individual bargaining lost certain advantages. Since a person might become subject to an agreement at the option of the Government, participation in fixing its terms became more desirable.

Trade-unions customarily register with the Government, thereby acquiring certain rights at law. If the association is to be constituted for 30 years or an indefinite period, a parliamentary act is required under the terms of legislation adopted in 1855. A decree is sufficient to constitute such a body for less than 30 years. In both cases the rules and regulations of the organization must be approved. Recognition may be refused only if it is in the public interest, and the reasons must be given. Organizations that are not registered may not take civil action and their property is deemed to belong to persons signing contracts.

The 1937 membership of the six leading federations of trade-unions was as follows:

	Unions	*Members*
Social-Democratic	30	283, 382
Catholic	24	168, 661
Protestant	21	108, 235
Neutral	29	44, 602
Independent	8	11, 356
Syndicalist	7	1, 872
Total	119	618, 108

DEVELOPMENTS AFTER THE GERMAN OCCUPATION

When Germany entered the Netherlands in May 1940 the occupation forces undertook to concentrate trade-union membership in a single organization, and selected the Netherlands Federation of Trade Unions, which had 310,000 members and was closely associated with the Social-Democratic Party. First the neutral and syndicalist unions (60,000 members) were dissolved and incorporated into the Federation and in July 1941 similar action was taken with the Catholic and Protestant unions (325,000 members). Two-thirds of the members left the movement in preference to remaining in the Federation under German control.

Under a decree of May 1, 1942, the Netherlands Federation of Trade Unions suffered the same fate as the other unions and was replaced by

the Dutch "Labor Front." This organization resembles that established in Germany and other conquered countries. While the Labor Front supposedly carries out the functions of trade-unions, in fact it is German-dominated and operates to keep workers in line for the benefit of the war effort. Support of the Labor Front is extremely small in the Netherlands. Membership has remained voluntary, but pressure to join was brought to bear on employees first by threats and then by offers of special benefits. None of the measures have succeeded.

Political control was extended to the workers by the introduction of "social" foremen into the factories. They are paid by the employer, but are appointed by and responsible to the head of the Labor Front, and act as labor spies.

Employers were regimented in the same methodical way as employees. Owing to their resistance to measures designed to control all phases of industrial production, all former employer and industrial organizations were ordered dissolved on August 15, 1941. Membership was made compulsory in bodies that the occupying authorities could control and that had advisory functions only.

Farmers were forced into a food-control board that was organized in October 1941.

Industrial Relations

COLLECTIVE AGREEMENTS BEFORE THE WAR

Voluntary cooperation between employers and employees was the keystone of industrial relations in the Netherlands before this war. Collective agreements were widely accepted and frequent references have been made to their terms throughout this report on labor conditions. The number of persons covered by collective agreements increased from 210,900 in 1935 to 282,850 in 1937. Of the total covered in 1937, 171,100 were in industry, 78,350 in agriculture, and 33,400 in other pursuits.

Legislation on collective agreements began with the law of December 24, 1927, which gave them official approval. Only incorporated associations of employers and employees were recognized as agencies capable of entering such contracts. On April 7, 1933, in an effort to encourage collective bargaining, an act was passed providing for the formation of industrial councils, composed of employers and employees, to make proposals for the betterment of conditions of work, preferably through collective agreements.

The Netherlands Government gradually extended its control over working conditions fixed by collective agreements. Finally, by act of May 25, 1937, the Minister of Social Affairs was given power to apply the terms of a collective agreement entered into by the majority of the persons in an industry throughout that industry, in the entire country or in a part of the country. In 1939, the terms of collective agreements applied to nearly twice as many workers as there were trade-unionists.

Agriculture.—Special Government measures were taken to encourage the establishment of working conditions in agriculture by collective agreement. Under the Agricultural Crisis Act of 1933, the Minister of Economic Affairs was empowered to take such measures as he deemed necessary to aid agriculture, and all persons receiving aid from

the Crisis Fund were required to observe them. By decree of June 27, 1934, assisted employers were obliged to recognize one or more of the unions of agricultural workers for the purpose of negotiating agreements with their employees. The terms of the agreements could not be less favorable than those fixed under the Crisis Act and employers were obliged to observe the terms of arbitration awards. The 1934 decree was renewed, with amendments, by decree of April 4, 1939.

EFFECT OF THE OCCUPATION

The ordinary processes of collective bargaining became inoperative under an order issued by the German occupation forces on November 28, 1940. Conditions of employment were to be fixed by the Secretary-General of the Ministry of Social Affairs. The terms of this order were also sufficiently far-reaching to make possible a complete scrapping of the system of collective agreements.

LABOR DISPUTES

Pre-war conditions.—The right of workers in the Netherlands to strike was recognized by law in 1872. Civil servants and railway employees were the only classes that were forbidden to take recourse to direct action under restrictions laid down in amendments to the Penal Code in 1903. Before the present war, however, most collective agreements in force contained provisions whereby the contracting parties agreed to refrain from any action which might lead to strikes or lockouts during the effective period of contracts.

On the average, the years 1926–30 and 1931–35 were periods of considerable strike activity as compared with later years, but the disputes were largely settled by compromise. In the 4 years following, strike activity diminished sharply. From year to year there was no clear trend as to the parties winning decisions in disputes.

Strike conditions under the German occupation.—Dutch working people reacted violently against the promulgation of the racial laws by the Germans. Strikes were one expression of their disapproval. The first of these stoppages occurred in February 1941, following the introduction of the discriminatory legislation. Strikes were called in the municipal services and for about 5 days the whole industrial life came to a complete stop.

Late in April it was announced that members of the armed forces who had been released in 1940 would be taken to Germany to perform forced labor. A general strike ensued immediately and lasted for 6 days. As a direct result, martial law was declared on May 1, 1943, and the death penalty was provided for strikes, lockouts, or hostile propaganda by written or spoken word. A number of executions took place.

CONCILIATION AND ARBITRATION

Pre-war practice.—A large proportion of the collective agreements governing working conditions contain provisions for settling industrial disputes arising in connection with their application. Details of the individual systems vary.

Under the Labor Disputes Act of May 4, 1923, the Government was granted power to intervene in industrial disputes. Provision was

made for maintaining official conciliators in the Ministry of Labor and establishing special conciliation and arbitration committees when needed. In important disputes involving the public interest, the Minister of Labor was authorized to appoint commissions of inquiry.

By the terms of the act, the permanent staff of conciliators in the Ministry of Labor is responsible for attempting to bring about voluntary settlement of disputes submitted by employers and employees. The Government conciliator may intervene in disputes under given conditions, such as when the dispute affects at least 50 persons and may result in a strike or lockout. Single conciliators or boards may hear cases and the Government conciliator is permitted to act as a special conciliator or chairman of a conciliation board, on request of the parties. If a settlement is reached, the case is closed. If negotiation fails, the parties have the option of requesting arbitration of their difference.

A request for arbitration must be made in writing by the disputants to the Government conciliator, either in the first instance or after conciliation proves unsuccessful. The Government conciliator may not act as arbitrator. If the case seems suitable for arbitration the Government conciliator draws up a record which is signed by both parties and in which they pledge to submit the dispute to arbitration, give certain particulars about themselves, and nominate the arbitrator or the chairman and members of the court. This document states the duration and validity of the award. After a decision is made by majority vote, the Minister of Labor may cancel the award, order another award, or order modifications in the award. When accepted by all parties, however, an award has the force of a collective agreement.

In a dispute seriously affecting the public interest, which is likely to cause or has caused a strike or lockout affecting not less than 300 workers, the Labor Disputes Act authorizes the Minister of Labor to appoint a committee to inquire into the dispute. The purpose of the special inquiry technique is to inform the public, so that the people may be able to form an opinion on the merits of the case.

The peaceful settlement of industrial disputes is also one of the purposes of the legislation on industrial councils which was passed on April 7, 1933.

Wartime scheme for merchant marine.—In 1943, new regulations were promulgated to facilitate the settlement of disputes occurring on board Netherlands merchant-marine vessels. Depending on the size of the crew, each ship is required to have one or more crew representatives to negotiate with the master of the vessel on differences, and to keep him informed of complaints. All issues must be handled on board in the first instance. If no agreement is reached the disputed question may be referred to the representative of the Netherlands shipping committee in a port of call. Pending a decision by a competent body, the decision of the master is binding.

When a case is brought before a shipping committee, the committee hears the parties and makes a decision which is binding unless modified by appeal. In case of appeal against the decision, the representative of the committee sends a detailed report of the case (signed by both parties) to the Netherlands Shipping Committee in London or New York. The dispute is referred to the Arbitration Commission for Labor Questions for final decision.

Administrative Agencies for Labor

A number of special administrative bodies functioned for the purpose of protecting labor in peacetime. The chief consultative bodies were the Superior Labor Council, which advised the Government on labor matters; the Economic Council, which dealt with labor along with general economic problems; and industrial councils, composed of equal numbers of employer and employee representatives, which were to make proposals covering conditions of employment, measures to combat unemployment, and related subjects.

Within the Government, the Ministry of Social Affairs was the responsible administrative agency for labor. In 1919 a Department of Labor Inspection was created under the Minister's control. A Director-General of Labor was to supervise the system, which was to consist of a chief labor inspector and various inspectors, assistants, and supervisors, including women.

A system of public employment agencies was maintained. The country was divided into districts, each of which had an office, and every commune was required to establish an agency. Private offices also were regulated. In 1938, 1,538,545 applicants registered for work and 310,210 were placed; corresponding figures for 1940 are 1,610,605 applicants and 473,219 placements.

On May 18, 1940, a German commissioner, responsible directly to Hitler, was made the sole governing power of the Netherlands; no puppet government was established. The Ministry of Social Affairs was taken over intact and a Dutch Nazi was appointed as secretary-general to carry out the Minister's functions. Certain changes in the administration of labor matters were made and a completely centralized organization was substituted for the Dutch administration based on division of functions between central and local authorities. A centralized State Employment Office, created in September 1940, was made the sole public placing authority; it was to consist of a central office and some 30 regional offices, but the existing system was maintained until the new organization could be established.

Cooperative Movement

PRE-WAR DEVELOPMENT

The people of the Netherlands were rather slow to take up cooperative activities. Although the first cooperative (a farmers' association) was formed in 1837, the general law authorizing cooperatives was not passed until 1876. The development of cooperatives, although continuous, was very gradual, especially in the field of consumers' organizations. Religious and political differences (as in the Dutch trade-union movement) kept apart, in small separate groups, cooperators who might otherwise have been banded into strong, stable organizations. Thus, the Catholics, Protestants, and at one time the Social-Democratic Party, had separate cooperative associations.

Through their cooperatives, the Dutch farmers have achieved a success rivaled only by that of the agricultural cooperatives of Denmark. For example, in 1938 cooperative dairies handled 76.7 percent of the total milk and made 82.0 percent of the butter and 75.5 percent of the cheese. Through cooperative insurance associations the farmers

insured many risks. Each of the various types of associations had its own central organization. Among the farmers' organizations, as in the consumers' cooperatives, there was division along religious lines. In 1938–39 the largest Catholic agricultural federation, Landbouw-Comité, had in affiliation 520 local associations (with 70,000 members); the Protestant Federation had 288 affiliates; and the neutral supply federations had 198 associations in membership.

Most of the credit coöperatives in the Netherlands are those of the farmers, and these agricultural credit cooperatives in turn are mostly of the Raiffeisen type which also do purchasing of farm supplies and processing and marketing of farm produce. The Raiffeisen associations had their own federation to which 729 associations, with 158,781 members, were affiliated in 1936.

The consumers' cooperatives have been concentrated mainly in the cities, among the industrial workers. Their growth was not so great nor so spectacular as that of farmers' associations, but in 1940 they were serving about 15 percent of the entire population (the percentage was considerably higher on the basis of the cities alone) and accounted for about 6 percent of the retail grocery business in the Netherlands. For the most part they have consisted of bakeries, fuel associations, kitchens doing central cooking of meals for urban dwellers, and store associations selling groceries and provisions and household supplies. Cooperative housing associations have also operated. Although the Dutch cooperatives did not undertake welfare work extensively, as the Belgian associations did, a few organizations have been outstanding in this respect. In 1920, previously existing federations merged, forming the Central Union of Dutch Distributive Cooperatives (*Centrale Bond van Nederlandsche Verbruicks-coöperaties*), one of whose principles was that of political and religious neutrality.

The cooperative wholesale association started as a purchasing agency for a local cooperative and later became the wholesale department of the Dutch Cooperative Union. In 1914, it became a separate organization under the name "De Handelskamer," and was joined by various Catholic, socialist, and independent associations which were not willing to endorse the neutrality principle, as well as by most of the neutral associations. The wholesale confined its efforts to the commercial field and took no stand whatever regarding political or religious matters. In 1938, 292 of the 351 consumers' cooperatives in the Netherlands were members of the wholesale and their combined membership (258, 896) accounted for slightly over 86 percent of all the 298,887 consumers' cooperative members in the country.

COOPERATIVES AND THE WAR

During the battle period after the German invasion of 1940, much destruction resulted both from the war and from looting, cooperatives' property as well as that of others being affected. Life was so disrupted that cooperative membership fell over 50 percent.

Apparently, after the military and civil overlordship was imposed, the cooperative associations were allowed to continue operations, under the "mild" policy which the Germans first adopted. However, difficulties of various kinds made a change of cooperative price policy necessary; some associations reduced prices to the lowest possible level consistent with safety, and others paid fixed patronage returns which were included with expenses of operation.

German rule became harsher in 1942, and new measures were imposed upon the populace. Among those affecting the cooperative movement was one that dissolved the National Cooperative Council—representing all branches of cooperation—that had been formed in 1934. A new Cooperative Council of the Netherlands, covering only agricultural cooperatives, was formed, to which all these associations were required to affiliate. The Council was placed under the control of the Department of Agriculture and Fisheries. It was given the authority to liquidate any agricultural cooperative that failed to affiliate within 4 months, or was not large enough to permit "a useful performance of economic activities," or that failed to meet its obligations. This move, as the International Cooperative Alliance pointed out, "means the isolation of the consumers' movement and thus undoes a good deal of the progress made in recent years in the direction of cooperative unity."

Although no direct word has been received since late in 1942, it appears that the cooperative framework should be intact for postwar expansion.

Social Insurance

In peacetime, the Netherlands had comprehensive compulsory systems of insurance against sickness, invalidity, old age, and death, as well as of workmen's compensation for industrial accidents. The unemployment-insurance scheme was on a voluntary basis. All of these systems except the unemployment insurance are being maintained during the German occupation. On July 3, 1943, trade-union unemployment-insurance funds were abolished by the Labor Front, as a punishment for recalcitrance on the part of the Netherlands working class. Netherlands workers recruited for employment in Germany are insured with the German sick funds.

Coverage of sickness and invalidity, old-age, and death insurance was broad, as it extended to persons with fixed incomes below certain amounts and to agricultural labor. Under the workmen's compensation laws persons working for wages, including agricultural workers and persons on seagoing vessels, or as volunteers and apprentices were insured regardless of income. Although unemployment insurance was voluntary, 571,212 persons were covered in December 1938.

Employers and employees contributed in equal shares to the cost of sickness insurance. Employees and the Government maintained the unemployment-insurance funds established by labor organizations. The contributions for invalidity, old-age, and death insurance were made by employers chiefly and those for workmen's compensation were from employers entirely. Government subsidy was paid to all funds with the exception of the last-mentioned.

In general, the rates of benefit varied according to the scale of pay and contributions of the insured persons.

Separate insurance plans covering different risks were maintained in certain industries, notably for mine and railway employees and seamen.

The State Insurance Bank occupied an important place in the administration of social insurance.

SICKNESS INSURANCE

General system.—Compulsory sickness insurance was provided for by a law passed June 5, 1913, and frequently amended. The law provides that workers whose annual wages do not exceed Fl.3,000 are covered by compulsory sickness insurance. Specifically excluded are domestic servants, casual workers, apprentices who do not receive cash wages, seamen on ocean-going vessels other than those engaged in coastwise shipping, persons called for military service, those whose annual wages exceed Fl.3,000, and railway workers covered by a special-insurance system. Workers whose daily wage is below Fl.0.40 may be exempted from compulsory insurance.

Medical benefit insurance, although originally left to private initiative, was very popular. In 1938, it covered more than one-third of the population—3,747,100. In November 1941, general sickness funds were established to provide benefits both in cash and in kind. Provisionally, contributions were fixed at 4 percent of the insured wage, in accordance with the estimated cost of benefits, to be paid in equal shares by employers and employees.

In addition to medical and dental assistance, an insured person is entitled to a cash benefit of 80 percent of his basic wage per working day, to be paid from the third day of incapacity and during not more than 26 consecutive weeks. Maternity benefits are also provided. If the insured person or a member of his family dies, the fund pays Fl.50; for a child under 3 years, Fl.30 is paid.

Seamen's system.—Under the Commercial Code, as amended on June 14, 1930, shipowners are made responsible for seamen who become sick while in their employ, whether on duty or not. Officers and other personnel are included, with the exception of those in the service of the State.

As long as the seaman is on board, he continues to receive his full wages. If left ashore for nursing, he receives 80 percent of his regular wages until his recovery, up to a maximum period of 26 weeks.

Nursing and medical attention must be provided while the seaman is outside the Netherlands for not to exceed 52 weeks. If he is left behind abroad, he is entitled to free passage to a port in the Netherlands. If he dies outside the Netherlands while serving on board a vessel, the employer must pay burial expenses.

In March 1942, the Government-in-exile replaced the order of June 6, 1940, providing for the compulsory service of merchant seamen, with a new order. Effective January 1, 1943, any seaman who had come under the compulsory service order and who was temporarily unemployed by reason of illness was entitled to free board, lodging, and medical treatment and nursing. In addition he was to receive 80 percent of his regular pay. Presumably the costs of these benefits were to be borne by the Government.

Miners' system.—Sickness funds for miners are handled by the Miners' Fund at Limburg described below under pension insurance. Miners, being members of the medical and sickness funds in the industry, are exempt from insurance under the General Sickness Insurance Act. The Miners' Medical Fund provided for 116,274 persons on December 31, 1937; of these, over 100,000 were members of the sickness fund and the reminder were members of the pension fund. Ordinary sick benefits are limited to 6 months (formerly 12) and extended benefits to 9 months (formerly 12).

Other systems.—Railway workers are covered by a special scheme of sickness benefits, established administratively. In 1933, workers were entitled to their full wages for the first year of incapacity and 70 percent of their wage for the second and third years. An additional benefit was granted for a period depending on the worker's length of service.

Civil servants have a sickness scheme of their own, and domestic servants in private households are entitled to limited benefits under the Civil Code.

INSURANCE AGAINST INVALIDITY, OLD AGE, AND DEATH

General system.—The compulsory system of pension insurance provided for by law on June 5, 1913, applies to all workers over the age of 14 years whose remuneration does not exceed Fl.2,000 per year. Thus, coverage extends to persons in industry, commerce, agriculture, and other occupations, as well as to domestic servants and home workers.

In 1938, the compulsorily insured in possession of insurance cards totaled 2,450,000, including pensioners. The number of persons for whom contributions were being made was 1,130,000.

Contributions for the support of the system are made up of payments by way of subsidy from the Government and, with minor exceptions, from regular payments made by employers based on the earnings of their employees. The regular rates of contribution for males are fixed for five wage classes, and range from Fl.0.25 weekly for those earning less than Fl.240 per year to Fl.0.60 for those earning Fl.900 and over. Rates for women are slightly lower.

Old-age pensions are payable at age 65 years. The basic amount is equal to 260 times the total sum of weekly contributions paid during the period of insurance, divided by the number of weeks during which the person was insured. To the basic pension is added an increment fixed at 11.2 percent of the total contributions paid and in no case less than one-fifth of the basic amount. After 150 contributions a person receives invalidity benefits, if his capacity to work is reduced by two-thirds or more; temporary incapacity lasting over 6 months is treated as permanent incapacity. Death benefits are payable to the widow of an insured worker, to legitimate or illegitimate children (under 14 years) of an insured father, and to legitimate children of an insured mother responsible for their care. The annuity for all orphans in a family is calculated in a lump sum until all the children have reached age 14. Benefits are prorated among the children and the portion of each child who reaches age 14 is divided among the younger children.

Under a law passed on November 4, 1919, any Netherlander was authorized to purchase an old-age annuity voluntarily at his own expense. Little advantage was taken of the opportunity, and admission to the plan was discontinued in September 1923.

Operating statistics for 1938 show that 140,180 persons were voluntarily insured under schemes wholly or partly subsidized by the State. The voluntarily insured at their own expense numbered 108,500 (39,000 were no longer contributing).

Under the voluntary system, at age 65 years or such lower age as the Goverment may fix, the insured person is entitled to benefits.

The amount of the annuity is dependent on the age at which insurance is taken out and the age at which the annuity payments begin. The maximum annuity obtainable is Fl.20 a week. A sum of Fl.100 is paid for funeral expenses (Fl.20 to Fl.60 for an insured child).

Miners' system.—Miners were brought under compulsory invalidity, old-age, and death insurance by law of April 21, 1933, which was placed in operation by decree of December 14, 1935, effective on January 1, 1936. Special legislation was necessary owing to the prior existence of a Miners' Fund (at Limburg) which insured mine labor against various risks.

As the Miners' Fund had operated, miners who left mining for other insurable employment were insured under the compulsory pension plan for the duration of the outside employment only. Also, mine workers covered by the Miners' Fund did not benefit from State subsidy as did those subject to the compulsory system. The law of 1935 coordinated the miners' scheme with the compulsory pension system and removed the inequalities by providing Government subsidy to the Miners' Fund. Employers and employees make equal contribution, ranging from Fl.3.60 to Fl.9.00 a month. Wage earners employed in mines, who are under age 40 years when entering insurance, are covered. For underground workers the pensionable age is 55 years. Benefits are payable after 120 months and consist of a basic pension that varies according to wage class, and supplements depending upon the number of contributions and the number of dependent children.

Other systems.—Civil servants are insured under the Pensions Act of 1922. Railwaymen, exempt from the general pension system, are compulsorily insured under the Railway Pension Fund.

UNEMPLOYMENT INSURANCE

The unemployment-insurance system of the Netherlands was voluntary and was established by decree of December 2, 1916, which became effective in January 1917. Any labor organization might insure its membership against unemployment. In December 1938, the average number of insured persons was 571,212; the number unemployed was 184,410; and the number in receipt of benefits totaled 56,094.

Employers made no contribution toward the funds, which were financed by employees and State and local governments. The amounts of the contributions varied as between funds. In 1937 the average contribution per worker was Fl.14.2. Each union reported the total contributed by its members. The State matched such sums and half of the State subsidy was refunded by the local governments, with certain exceptions. In the years of depression (1931–33), the Government subsidies exceeded the contributions of the members.

Both the amount and duration of benefits were fixed by each union in accordance with the scale of contributions. In general, the waiting period before benefit commenced was 1 week (6 days) and the qualifying period for benefit was 26 weeks. Benefit periods ranged from 36 to 90 days in 30 unions studied. By law, benefits might not exceed 70 percent of the average daily wages in subsidized associations. In 1937, benefits averaged Fl.27.2 per insured worker.

WORKMEN'S COMPENSATION FOR INDUSTRIAL ACCIDENTS

General system.—Insurance against industrial accidents, specified occupational diseases, and special risks was made compulsory, on January 2, 1901, for every person working in covered industries, including work organized for unemployment relief. Agriculture and related pursuits and seagoing vessels are excluded. In 1938, 328,000 full-time workers were insured.

Employers bear the cost of administration and of benefit payments to workers. A person who is temporarily incapacitated for work is entitled to receive medical attention or corresponding compensation and temporary cash benefit at the rate of 80 percent of the insured person's daily wage (payable from the day following the accident after a waiting period of 3 days) for 42 days. After the 42-day benefit period, he receives a pension equal to 70 percent of his daily wage for total incapacity. The rate is reduced proportionately for partial incapacity. Benefit for permanent incapacity is the same as for temporary incapacity lasting over 6 weeks. If the worker dies, the surviving dependents receive funeral benefits equal to 30 times the daily wage. Pensions are payable to the survivors from the day following the death of the insured. The wife receives 30 percent of the daily wage. For each child (legitimate or recognized illegitimate at the time of the accident) the payment is 15 percent of the daily wage (20 percent for a child becoming an orphan), payable until the child reaches age 16. Relatives in the ascending line, if dependent on the deceased breadwinner, are also entitled to limited benefits. The total sum paid to all the dependents may not exceed 60 percent of the deceased person's wage.

Agricultural system.—Compulsory workmen's compensation in agriculture was established under the Agricultural Accident Insurance Act of May 20, 1922. Persons employed for wages or as apprentices in agriculture, stockkeeping, horticulture, and forestry are covered, at the employer's expense. On December 31, 1937, 102,700 enterprises were liable to accident insurance. Benefits are fixed by the same method as that followed under the general workmen's compensation system. However, when permanent partial incapacity involves not over a 15-percent reduction in working capacity, the pension may be commuted for a lump sum equal to 3 times the annual value of the benefit payment, unless the victim was 50 years of age or over when the accident occurred.

Seamen's system.—Shipowners were made liable for cash benefits (June 27, 1919) and for medical benefits and free passage home (June 14, 1930) for seamen injured while in their employ, whether on board ship or ashore. Injury incurred in the service of the State is not covered. The seaman has the same right to nursing and medical attention and a free passage home as a seaman who falls sick. Full wages are to be paid while the seaman is on board the ship. No wages are due an injured seaman who has been put ashore. The daily wage on which compensation is based cannot exceed Fl.8. By an agreement between the shipowners and seamen's unions, compensation for accidents is increased by 50 percent if the accident resulted from an act of war. If a seaman dies outside the Netherlands while serving on board a vessel, his body is to be buried ashore or at sea, at the expense of the shipowner.

Employment and Labor Conditions

Employment of Prisoners of War

THE War Department and the War Manpower Commission in August 1943 reached an understanding regarding the hiring out of prisoners of war.[1] Prisoners (not including officers) whom the War Department can make available to other agencies and private employers may be utilized as a source of labor under conditions which conform to the regulations prescribed for prisoners of war by the Geneva Convention of July 27, 1929.[2]

Requests for the use of prisoners of war are to be handled by the War Manpower Commission and, if approved, will be forwarded to the appropriate official in the War Department. In order to obtain such workers it must be shown that other labor is not available and cannot be recruited from other areas within a reasonable length of time, that all supplies of labor of the type needed (including secondary sources) within the area are exhausted, and that the prisoners of war will not be used in any way which will impair the wages, working conditions, and employment opportunities of resident labor or displace employed workers.

Procedures for obtaining prisoner-of-war labor.—When it has been determined that the labor needed cannot be obtained from other sources, the local office of the U. S. Employment Service will certify the need for employment of prisoners of war. This certification is then acted upon successively by the State Director of the War Manpower Commission, the Regional Director of that organization, and the appropriate official of the War Department. Requests for prisoners as agricultural laborers are handled by the State Extension Service Director and the State and Regional War Manpower Commission Directors.

Requests for such labor must contain the name and address of the prospective employer; a description of the work for which the labor is needed; the period of time for which such labor is required; the number of workers needed; the unit of work such as "hour," "day," or "piece" on which payments will depend; and whether or not the noonday meal will be supplied (prisoners of war may be employed as a labor source only when they can be transported from and returned to the internment camp each day).

Establishment of prisoner-of-war camps.—By agreement with the War Department, the War Manpower Commission is to submit recommendations with respect to the location of new camps. Regional officers of the Commission are instructed to submit such recommendations to Washington headquarters, and to certify that employment

[1] War Manpower Commission, USES Headquarters Bulletin No. 63, August 14, 1943; WMC Field Instructions No. 8, September 21, No. 65, October 15, and No. 69, October 19, 1943.
[2] See Monthly Labor Review, May 1943 (pp. 891-895).

opportunities exist for prisoner-of-war labor which will not result in displacement of free labor or a lowering of prevailing wage standards. Regional War Manpower Directors were informed that requests for establishment of such camps should indicate the number of prisoners to be housed in the camp, and the type and length of employment available.

Remuneration for services of prisoners of war.—The Director of the Prisoner of War Division of the War Department, on October 7, 1943, called attention to the fact that charges for prisoner-of-war labor are based upon the prevailing wage scale as certified by the War Manpower Commission. The same method will be used on Government-sponsored projects (other than those of the War Department) as on private projects, in order to avoid competition with free labor.

A procedure has been formulated to handle requests for adjustment of pay rates claimed to be excessive or inequitable in the use of this prisoner-of-war labor.[3] When the employer seeks an adjustment of pay rates claimed to be excessive, his written application for adjustment is to be presented to the commanding officer of the prisoner-of-war camp. That officer is to forward the application, together with a statement of facts, a copy of the contract involved, and his recommendation, to the commanding general of the Service Command. The commanding general will either deny the application as being without merit, or, with the recommendation of the Regional Manpower Director included, will forward the case to Headquarters, Army Service Forces, for final disposition.

In order to assist in the control of prisoners of war engaged on work projects, camp commanders were authorized by the War Department on October 6, 1943, to utilize prisoner officers and noncommissioned officers as supervisors and interpreters. This personnel is to be in addition to the number specified to be furnished in the work-project contract and to be paid at the rate of 80 cents per day. As these persons perform no labor for the contractor, their employment is not to be included in the work contract and reimbursement will not be required from the contractor.

Alleviation of Farm-Labor Shortage in Canada[4]

DURING 1943, serious farm-labor shortages in Canada were almost eliminated by the operation of detailed plans worked out by the Department of Labor and by the continuous attention given to farmers' needs. The previous year, labor scarcity was Canada's principal farm problem and a great deal of western grain was not harvested until spring. In March 1943, Department of Labor officials visited all the Provinces for the purpose of negotiating farm-labor agreements for joint action by the Dominion and the Provinces. As a result of these agreements, extensive and effective programs were developed in every Province to deal with the problem during the following summer and, to a certain extent, in subsequent periods.

Close working arrangements were developed between most of the Mobilization Boards and the Provincial directors of farm labor. The

[3] War Manpower Commission, Field Instruction No. 119, November 24, 1943.
[4] Data are from a report by Clifford C. Taylor, United States agricultural attaché, Ottawa (No. 419).

field staff collects information for the Boards on the farming activities of men applying for deferment, the effective employment of workers on productive farms for the entire year, and whether a man can be spared from his farm during the winter for temporary employment in another essential industry. Many men are being transferred to more effective farm or other temporary employment. Relatively uniform interpretation of the mobilization regulations providing special treatment for farmers or farm workers requesting deferment was obtained by sending an interpretative letter to the chairmen of all Mobilization Boards.

Agriculture benefited from the first compulsory transfer order under which single men physically fit and experienced for farm work were directed to farm jobs. Some permanent help for dairy and livestock farms was supplied. In addition, more than 2,250 conscientious objectors were assigned to farms under an April order directing them to essential work. About 1,500 of these men were released from Alternative Service Camps to return to farms. Under the order the conscientious objectors were to receive $25 a month and board, the Red Cross receiving the difference between this amount and the current farm wage.

Substantial assistance with harvesting operations was given by the Army. More than 6,000 men were granted leave to return to their own farms or those of immediate relatives; the Department of Labor paid the cost of transportation up to 500 miles and provided a suit of overalls for each man. Approximately 2,500 soldiers worked on farms under the "farm duty" plan, whereby the farmers paid current wages for the soldiers' labor; transportation and overalls were supplied by the Labor Department.

The Canadian Japanese who have been moved from the Coast area in British Columbia furnished about 5,000 extra workers for Canadian farmers; a few of them live in special camps, but the majority are on individual farms. Approximately 500 prisoners of war also are working on farms under a plan worked out by the Department of Labor in conjunction with the Department of National Defense. Some prisoners work individually on the farms. The farmer pays $25 a month to the Director of Prisoners of War Projects and supplies board and lodging. Out of this amount each man is credited with 50 cents per day, of which 30 cents is for his own use and the rest is held in reserve for him. Trustworthy men from internment camps—mostly merchant seamen interned since the beginning of the war—who wish to work on farms are placed with farmers on the same basis as the war prisoners.

In more than one instance farmers have been shifted temporarily to parts of the country where a shortage was particularly bad. For example, 700 farmers in Saskatchewan were recruited early in the summer to help with the haying in Ontario, and free transportation was provided. Numbers of treaty Indians were recruited from reserves and transported to farms. Efforts have been made to induce students and others to work on farms during their holidays and spare time.

Farm labor which can be spared from the farms during the winter is recruited for other essential work. In the winter of 1942–43, hundreds of farm workers went into such industries on temporary Selective Service permits. On March 31, the permits were canceled

and the workers were directed back to agriculture. The number who failed to return was estimated to be very small. Recruitment for the 1943–44 winter is being conducted by the farm-labor organizations on a much larger scale than previously.

Wartime Employment of Women in Underground Mining in India

IN ORDER to increase the supply of labor for the coal mines in the Central Provinces of India, all such mines have been exempted from the provision of the Indian Mines Act, 1923, prohibiting "the entry of women into underground workings for the purposes of employment." [1]

A sufficient supply of cars for the transportation of coal is reported but the labor shortage prevents maximum production. The authorities hope to induce women to come into the coal fields to alleviate the shortage.

According to the article under review, the relaxation of the prohibition is regarded merely as an emergency measure.

Unemployment in Peru, 1942 [2]

OFFICIAL figures on unemployment in Peru in 1942 show that only 981 persons were registered as unemployed, of whom 429 were classified as salaried employees and 348 as unskilled workers. Nearly one-third (319 persons) were registered in the Department of Lima. The total number of registered unemployed in 1942 was somewhat larger than in 1939 (949 persons), or 1941 (855 persons), but less than half the number registered in 1940 (2,259 persons). However, because of their geographic and economic distribution, the unemployed in Peru cannot be looked upon as a source of labor for industries producing strategic materials.

According to the Peruvian Census of 1940, out of a total enumerated population of 6,207,967 persons, 2,475,339 were gainfully employed, while 3,732,628 persons (60.13 percent) were not employed. As the unemployed persons, according to the census figures, include minors, housewives, persons too old to work, and the incapacitated, this group cannot be considered an additional source of labor, except to a very limited extent.

The occupational distribution of the registered unemployed for 1942 indicates the following classification:

	Number registered
Total	981
Clerks	429
Unskilled workers	348
Masons	78
Carpenters	44
Chauffeurs	22
Mechanics	20
Others	40

[1] Indian Information (Principal Information Officer, Calcutta), August 15, 1943.

[2] Data are from report of Julian Greenup, counselor for economic affairs, United States Embassy, Lima, Peru, September 7, 1943.

Employment Conditions in Sweden, 1943[1]

Employment Situation, Summer of 1943

THE situation in the Swedish labor market during the summer of 1943 was characterized by an increased demand for harvest hands and replacements for personnel drafted for military service. Available reserves of unemployed continued to decrease and a shortage of applicants for work manifested itself in a number of fields. The public employment agencies reported that the average number of applicants for employment was reduced to 89 per 100 vacant positions in July as compared with 99 during July 1942.

The employment index of the Social Board of Sweden stood at 90 in July 1943, as compared with 95 for July 1942. This reduction resulted chiefly from the large number of men drafted for military service.

During the harvest season there was a considerable demand for agricultural labor to harvest hay, rye, and wheat. As a result of leave granted by the Chief of the Army to farmers and agricultural workers drafted for military service and with the aid of voluntary manpower recruited from students and persons on vacation, the harvest could be carried on satisfactorily. There continued, however, to be a shortage of female farm labor and young farm hands trained for dairy work.

It is reported that the workers previously engaged in forest work were transferred to agriculture or other kinds of seasonal work. At the peat bogs the cutting of peat was conducted at full capacity. In the middle of July about 1,600 conscripts were assigned to work in the peat bogs as part of their required service.

Other industries, particularly the metal, lumber, and food industries, showed an increased demand for skilled workers. The increased opportunities for employment in these industries are attributed to the demand for personnel to replace those drafted for military service. The mining industry reported a shortage of miners, particularly of underground workers. The lumber industry reported also a shortage of labor. In the wood-pulp industry certain personnel previously laid off were recalled to work. In the graphic industry there continued to be a shortage of typographers. The textile and clothing industries continued to report steady employment, while in the case of laundries the demand for labor exceeded the supply. During some months of the year from 15 to 30 percent of the labor force in the shoe factories were dismissed because of the shortage of raw materials; the tanneries curtailed their operations, with resultant dismissals.

In the brick and lime industries the demand for labor could not be adequately met, and several places reported a shortage of bricklayers and joiners.

The shipping offices reported 2,594 seamen hired and 2,502 seamen discharged during July 1943, as compared with 2,977 and 2,792, respectively, in the same month of 1942. Difficulties were experienced in recruiting trained officers. Ample opportunities for employment were offered to harbor workers, stevedores, and chauffeurs.

Commercial enterprises reported an inadequate supply of trained personnel to substitute for those drafted for military service. The

[1] Data are from report of Grant Olson, attaché at the United States Legation in Stockholm.

hotel and restaurant trade reported a shortage of help, particularly kitchen personnel; and hospitals continued to experience difficulties in obtaining necessary attendants.

Because of the many employment opportunities for women in other more attractive and lucrative fields, the scarcity of domestic servants became still more pronounced.

Unemployment Among Trade-Unionists

According to the State Labor Market Commission (*Statens Arbetsmarknadskommission*), the number of unemployed in Sweden, excluding lumbermen and raftsmen, reported by the labor organizations on June 30, 1943 (latest available figures), totaled 32,449. This represented 4.3 percent of the total number of registered members of the reporting trade-unions. The corresponding figures for 1942 were 36,472 and 4.9 percent.

On May 31, 1943, the total number of unemployed reported by the labor organizations was 33,696, or 4.4 percent of the total membership, as compared with 45,048 and 6.0 percent, respectively, on the corresponding date in 1942.

The number of unemployed applying for relief totaled 5,253 as of June 30, 1943 (a reduction of 15.8 percent). The comparative figure for June 30, 1942, was 7,941.

Index of Wages

The quarterly wage index for the second quarter of 1943 compiled by the Royal Social Board stood at 182.6, as compared with 178.0 for the first quarter of 1943 and 168.9 for the second quarter of 1942 (first quarter of 1935=100). Only a normal increase occurred in the wage index from the first to the second quarter of 1943. The pronounced advance from the second quarter of 1942, on the other hand, is ascribed to the increased number of workers employed by industry, wage increases in accordance with the master wage agreement, and longer working hours.

Collective Agreements

Collective agreements affecting some 813,000 Swedish workers belonging to the Swedish Confederation of Labor (total membership about 1,000,000 workers) and about 42,500 employers expired at the end of 1943, and some expire at the beginning of 1944. The wages of about 750,000 of these workers are covered by the existing master wage agreement between the Swedish Confederation of Labor and the Swedish Employers' Association, while about 60,000 workers receive compensation according to other regulations closely related to the above agreement. The most important agreement, affecting 494,000 workers, expired in December 1943. During October, agreements covering 56,000 workers (including 47,000 agricultural workers) terminated. While agreements involving only 1,300 workers expired during November 1943, agreements for 100,000, 25,000, and 135,000 workers terminate in January, February, and March 1944, respectively.

Among the important agreements terminating in December 1943 were those for machine shops and iron works, affecting 116,000 and

44,000 workers, respectively. Others were in the textile industry (36,000 workers), wearing-apparel industry (18,000 workers), hotel and restaurant trades (17,000 workers), building-materials industry (12,700 workers), and construction of public roads (11,000 workers).

During January 1944 agreements for the paper industry, lumbermen and raftsmen, and sawmill workers expire, while the agreement for the building industry will terminate in March 1944.

Norwegian Workers in Sweden

According to a recent newspaper report, more than 12,000 Norwegians are now working in Sweden. Of these between 6,000 and 7,000 are engaged in forestry and peat cutting, about 2,000 in agriculture, between 2,000 and 3,000 in industry and trade, and approximately 800 in road construction. During the second quarter of 1943 it was possible to place 6,600 Norwegian workers in various fields, of whom 820 obtained work in industry and trade.

Wage Agreement of Progressive Mine Workers

AN AGREEMENT between the Progressive Mine Workers of America, District No. 1, A. F. of L., and the Coal Producers Association of Illinois was approved by the National War Labor Board on December 3, 1943.[1] The agreement contains provisions approved on July 16 by the Board, including an increase in vacation pay to $50 a year (from $30), and also payment by the operators for tools used by the miners.

This agreement provides that $40 be paid each employee who has a work record from April 1 through November 1, 1943, "as a retroactive adjustment and in full settlement and discharge of any and all portal-to-portal travel time compensation prior to November 1, 1943." The $40 payment is payable at the rate of not less than $10 per month, payments to start 1 month after approval of this agreement. Employees who did not have a complete work record covering the designated period are to be paid on a pro-rata basis, computed on the time worked in this period. A similar $40 payment was approved by the War Labor Board in an agreement between the United Mine Workers of America and Illinois coal operators.

If, during the term of this agreement, any competitive field should make a contract covering wages or working conditions more favorable to either the miners or operators signatory thereto, the agreement is to be modified so that both sides may receive the benefits of such more favorable agreement. Such action, however, is to be subject to approval by the proper governmental agencies.

The agreement, covering approximately 12,000 mine workers, provides for continuance of the basic 35-hour workweek with time and a half after 35 hours.

Commission Pay Under "Little Steel" Formula

ON November 16, 1943, the National War Labor Board decided that the "Little Steel" formula, as a general rule, should not thereafter be applied to employees under the Board's jurisdiction who receive wage payments by the commission method.[2] This ruling applies to all such workers, estimated at more than 5,000,000, but in particular to salesmen in the distribution and service industries.

The Board found that the "Little Steel" formula was generally inapplicable to commissions because of the complexity of the types of commissions, and because a record of the number of hours worked

[1] National War Labor Board, Press release, December 3, 1943.
[2] Idem, November 16, 1943.

is seldom kept. The "Little Steel" formula is based on the hourly rate. The Board found that in some instances virtually all earnings are commission earnings, whereas in other cases the commission constitutes only a very small proportion of the total earnings. Commission plans, even within a single industry or bargaining unit, may vary between these two extremes.

In some instances, very complex plans are in effect, providing for a complex rate schedule, a salary, and/or a guaranteed rate. For example, taxicab drivers may receive a percentage varying with the volume of business. Thus, one driver may receive 35 percent of the first $36 collected in a week and 50 percent on all collections in excess of $36; another may receive an hourly rate plus 40 percent commission on all bookings over $10 a day.

The Board states that each commission case will "be considered upon its own merits in the light of all the facts."

Procedure for Settling Disputes Over Overtime Pay[1]

THE Secretary of Labor, on November 24, 1943, suggested the following procedure as the proper method of obtaining advice and assistance under Executive Order No. 9240. That order set forth the principles and regulations that apply for the duration of the war to the payment of premium and overtime wage compensation on all work relating to the prosecution of the war.[2]

Under the suggested procedure, requests for interpretations concerning Executive Order No. 9240 are to be made to the special assistant to the Secretary of Labor, Robert T. Amis, United States Department of Labor. Interpretations will be given upon individual request, but it is advisable, particularly in cases of dispute, for both the company and the union to submit a joint statement of facts. In this manner, most disputes involving interpretations may be settled.

Where the dispute cannot be thus disposed of, the parties may seek the advice of the United States Conciliation Service. The Service will obtain the necessary facts to determine coverage and the issues, and then will refer the case to the special assistant to the Secretary of Labor. Disputes that cannot be settled in this way may be certified by the Secretary of Labor to the National War Labor Board for appropriate directive. All cases involving Executive Order No. 9240 which reach the National War Labor Board or the regional war labor boards through other channels are referred to a joint committee composed of a member of the staff of the War Labor Board and the special assistant to the Secretary of Labor above noted. This joint committee is to submit interpretations and recommendations under Executive Order No. 9240 to the National War Labor Board or the regional board directly concerned.

The making of any payment which is specifically required by the Executive order does not require War Labor Board approval. The employer may, therefore, pay time and a half for work on the 6 holidays (New Year's Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, and either Memorial Day or 1 other such holiday of

[1] Announcement of the Secretary of Labor, November 24, 1943.
[2] Federal Register, September 11, 1942 (pp. 7159–7160).

greater local importance) specified in the Executive order, and double time for work on the seventh consecutive day of work in the regularly scheduled workweek, without the approval of the National War Labor Board, regardless of the practice of the employer prior to October 3, 1942, the date of the President's Economic Stabilization Order.

Revision of Standard Membership-Maintenance Clause[1]

ON THE basis of its past year's experience in administering the voluntary maintenance-of-membership provision in collective agreements, the National War Labor Board issued a revision of that clause on November 30, 1943. The new standard procedure went into effect December 1, 1943.

The revised procedure retains some provisions of the old union-maintenance clause while making several important changes. It retains the basic requirement that employees who are members of the union after the expiration of a 15-day escape period must remain union members as a condition of employment.

Foremost among the changes is that relating to union coercion or intimidation of an employee to become a member. Substituted for the former pledge of the union not to resort to such measures is a provision making it mandatory that there be no coercion or intimidation. A prescribed notice is to be provided by the company or the union or both jointly. The notice advises employees of their rights under a maintenance-of-membership order, including the right to withdraw during the 15-day escape period.

The procedure for administering the maintenance-of-membership clause is changed by requiring that dues delinquents are to be given written notice to place themselves in good standing in the union within 7 days or be suspended for a 30-day period preliminary to discharge. Also, disputes over union membership are to be taken to an arbitrator who is to be selected as provided in the contract or by special agreement of the parties concerned. Formerly members of the union could withdraw from the union during any time within 15 days after the date of the directive order in the individual case; hereafter, the actual date of the expiration of the escape clause must be stated. The new clause also states that if the employee is not a member in good standing he is not required to join the union, but he is free to make application to join. If he is in doubt as to whether the union regards him as a member, he is told to inquire at the union office or of his departmental steward or other appropriate union official.

Liberalized Allowances for War Service Dependents[2]

ALLOWANCES for servicemen's dependents were liberalized under an act of October 26, 1943. This legislation increased the monthly benefit from $12 to $30 for the first child and for each additional child from $10 to $20. The allowance of $50 for a wife was not changed.

[1] National War Labor Board, Press releases, November 28, 1942 and November 30, 1943.
[2] Data are from U. S. Army Service Forces, Office of Dependency Benefits, Information and Public Relations Branch, Training Circular No. 24.

The accompanying table shows the amounts granted under the new legislation and under the previous act, June 23, 1942. In every case, $22 is deducted from the soldier's pay and the Government contributes the remainder, except when the soldier has dependents in Class A and also in Class B or B–1, when his contribution is increased to $27. Allowances are paid to Class B dependents only while there is no allowance payable to any Class B-1 dependents.

Monthly Family-Allowance Rates for Servicemen's Dependents Under Acts of 1942 and 1943

Class of dependent	Rate of allowance [1]			
	Under Act of 1942: where there was—		Under amended Act of 1943: where there is—	
	No Class A dependent	Class A dependent	No Class A dependent	Class A dependent
Class A				
Wife		$50		$80
Wife and 1 child		62		80
Wife and 2 children		72		100
Additional children (each)		10		20
Child, but no wife		42		42
Additional children (each)		10		20
Wife divorced [2]		42		42
Wife divorced and 1 child		62		77
Additional children, wife divorced (each)		10		20
Class B–1 [3]				
Dependent on enlisted man for chief support:				
1 parent	$37	20	$50	50
2 parents	47	30	68	68
1 parent and 1 brother or sister	42	25	68	68
Additional brothers or sisters (each)	5	5	11	11
1 brother or sister but no parent	27	10	42	42
Additional brother or sisters (each)	5	5	11	11
Class B [3]				
Dependent on enlisted man for substantial support:				
1 parent	37	20	37	37
2 parents	47	30	37	37
1 parent and 1 brother and sister	42	25	37	37
Additional brothers or sisters (each)	5	5	0	0
1 brother or sister but no parent	27	10	37	37
Additional brother or sisters (each)	5	5	0	0

[1] $22 per month is deducted from the soldier's pay, and the Government contributes the remainder, except when the soldier has dependents in Class A and also in Class B or B–1, when his contribution becomes $27.

[2] In the case of a divorced wife, the family allowance must not exceed the amount of alimony awarded.

[3] Under the Act of 1942 there was no Class B–1; the parents, brothers, and sisters dependent upon the enlisted man for their chief support were included in the same class (B) with those dependent upon him for their substantial support. According to the Amending Act approved October 26, 1943, section 6 (b), "The monthly allowance to Class B dependents shall be payable to only one designated dependent unless the secretary of the department concerned shall direct that the prescribed amount be apportioned among and paid to 2 or more of such dependents."

Section 120 (i) of the 1942 act was amended to cover male and female enlisted personnel of the first through the seventh grades, aviation cadets in any of the services mentioned in section 101 of that act, and any member of the U. S. Marine Corps band except the leader and second leader, and members "of the Philippine Army, the Philippine Scouts, the insular force of the Navy, the Samoan native guard or band of the Navy, or the Samoan reserve force of the Marine Corps."

The 1942 act did not cover enlisted women, men in the first, second, and third grades, or aviation cadets.

The amending act includes a new section which reads as follows:

SECTION 121. The dependents of an enlisted female shall be as prescribed by this title except that husband and children shall be included as dependents only

when found by the Secretary of the department concerned to be dependent upon her for chief support. The amount of the family allowance payable to the dependents of an enlisted female shall be as prescribed by this title except that the amount for a husband or husband and children shall be that prescribed for a wife or wife and children. The provisions of this section shall be applicable to dependents of any enlisted female only insofar as such provisions are not inconsistent with the provisions of any law pertaining to the service of which she is a member.

Women's Employment Board of Australia[1]

THE broad powers of the Women's Employment Board of Australia—established for the special wartime supervision of women employed in jobs usually held by men—have been annulled by the Senate.

The Board was originally constituted on March 25, 1942, by the National Security (Employment of Women) Regulations. Certain amendments to the regulations were annulled by the Senate on September 23, 1942. However, the authority of the Board was continued on October 6, 1942, when the Women's Employment Act was passed, providing by law for the Board and for issuance of regulations by the Governor-General to carry out the act. Decisions made by the Board up to and including September 2, 1942, were to be maintained.

Statutory Rule No. 548—a regulation which gave the Board extremely broad powers—took effect on December 23, 1942. On March 16, 1943, it also was nullified by the Senate. The regulation had provided that employers were required to apply to the Board for permission to employ females on new work or work usually done by males; the Board could regulate hours, wages, and conditions of such employment; decisions might be made at the request of a female employee or an organization of female employees, or on the Board's own motion, as well as on the request of an employer; and the Board might extend a decision to other employers or classes of employers than those for whom the original decision was made. Following the disallowance of the regulation by the Senate, statutory rule No. 75 of 1943 was issued, to preserve decisions made between October 1942, when the Women's Employment Act was passed, and March 16, 1943, when the regulation was voided.

In ruling on the validity of the Women's Employment Act, the High Court of Australia concluded (August 13, 1943) that the act was valid and that Board decisions made before the Senate's action in March 1943, are to be maintained, but that since then the Board "has had no power to act under existing legislation."

Reaffirmation of Wage Ceiling in Canada[2]

THE Canadian Government has reaffirmed its policy of maintaining the wartime wage ceiling introduced late in 1941 as a part of a general price-stabilization policy.[3] Under the terms of an order in council (P. C. 9384) dated December 9, 1943, it is stipulated that wages

[1] Data are from a report by Nelson Trusler Johnson, United States Minister, Canberra (1943, No. 373) and from The Employer's Review, Sydney, August 31, 1943; Validity of Women's Employment Act

[2] Data are from Canadian War Orders and Regulations, 1943, Vol. IV, No. 11, December 20, 1943, and daily press.

[3] For a discussion of the wage and price control orders see Monthly Labor Review, issues of December 1941 (p. 1392) and September 1942 (p. 466).

may be increased for the duration of the war only to remove gross inequality or gross injustice, and then only if the employer is able to increase pay without raising prices. Cost-of-living bonuses which were added to wages by authority of the Wartime Wages Control Order (P. C. 5963) issued on July 10, 1942, are to become a part of basic wage rates effective on February 15, 1944. Two such allowances were authorized in August 1942 and November 1943, to compensate for advances in the cost of living as shown by the official index. The new order does not provide for further wage adjustments in accordance with changes in living costs, but the Prime Minister has announced that the Government will review the whole program of price and wage control if the cost of living rises more than 3 percent and remains at that level for 2 consecutive months. Appropriate action will be taken if such rises occur.

Freezing of Workers in Essential Canadian Industries[1]

UNDER an order in council (P. C. 6625) effective September 20, 1943, the Canadian Government took a further step in manpower control by "freezing" on their jobs workers employed in industries of high essentiality. The extent of this measure is indicated by the fact that about a fourth of the workers 14 years of age or over were employed in high-priority classes on January 30, 1943. Previously, freezing orders had been applied only in the coal-mining industry and, to a lesser degree, in shipbuilding, base-metal mining, farming, and school teaching. Before the new regulation was adopted, its principles were carefully considered and unanimously approved by the National Selective Service Advisory Board, which has representation from organized labor, employers, farmers, returned soldiers, and Government departments. The new measure is expected to reduce labor turnover substantially.

Employers in industries having A or B labor-priority ratings—the two highest priorities—may not discharge employees without a written permit from a Selective Service Officer, and employees may not leave their jobs without such permission. The two priorities include all war industries and essential civilian services, such as the delivery of fuel in cities and food-processing and meat-packing plants. Although most of the construction industry is rated as having a high labor priority, because of working conditions peculiar to the industry the freezing order applies only to certain long-term projects.

For establishments in an essential industry which are working only part time, the freezing arrangements may be withdrawn. The order covers both males and females, but female workers are not to be included at the present time. Men who wish to volunteer for the military services or who are required to report for medical examination or military training are not affected by the new control. Permits to change employment are to be issued in cases where a refusal would cause obvious hardship or unfairness.

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[1] Data are from Canadian Labor Gazette, Ottawa, Canada, October 1943, and report from United States Legation, Ottawa (No. 162).

Official British Statements on Manpower in 1943[1]

IN A manpower debate held in the British House of Commons on September 23, 1943, the Minister of Labor made a recapitulation showing the completeness of wartime mobilization, and outlined possible future steps for reallocating workers and supplementing the labor force from among young and old persons in order to meet future needs for productive labor. The present article summarizes the Minister's review as well as a statement by the Parliamentary Secretary of the Ministry of Labor describing the measures employed thus far in Great Britain to secure the most economic use of the labor force.

Employment Situation

Of the 33,000,000 persons aged 14 to 64 years, inclusive, in Great Britain in September 1943, there were 22,750,000 in the armed forces, civil defense, or paid employment in either munitions or essential civilian industries. The total included 700,000 part-time women workers. The statistics of employment do not take into account additional war work of civilians who are already fully occupied in such duties as home and fire guard, nor do they include the various forms of volunteer work such as that done by married women with domestic responsibilities who are taking in lodgers or evacuees, by school children and students over 14 years of age, by members of the women's voluntary service, or by agencies giving voluntary service in canteens, nursery schools, etc.

Among 16,000,000 males aged 14 to 64 years, 15,000,000 were in the country's services or in paid employment.

The 17,000,000 women aged 14 to 64 years were in the armed services, in paid employment, or in domestic life. More than 1,000,000 were doing unpaid voluntary work which paid persons would have to do otherwise, and 7,750,000 were in the services or paid employment; "thus, 8,750,000 were rendering services of a national character." More than 9,000,000 children under 14 years of age must be cared for, which in itself is a national service. The single women between 18 and 40 were 91 percent employed; the other 9 percent were unable to work, owing to sickness or domestic responsibilities.

Women constituted a large proportion of the labor force in important war industries—for example, 35 percent of the total in engineering and allied industries and 52 percent in chemicals and explosives. Since the outbreak of war, over 800,000 women aged 40 to 60 years have entered industry, bringing the total employed women in this age group to 1,600,000; half a million of these women are 46 to 50 years old. In recruiting older women, no distinction is made between women who have and who have not worked; over 2,500,000 women have been recruited for the armed forces or industry from nonmanual and nonindustrial classes.

Over 1,000,000 persons were added to munitions industries between July 1942 and June 1943, two-fifths of whom were from nonindustrial groups.

[1] Data are from the following: British Civilian Manpower Is the Most Highly Mobilized in the World, by M. S. McCorquodale (Great Britain, Ministry of Labor and National Service); and British Information Services (New York), Information Division, L-113, September 27, 1943.

The higher-age brackets—over 65 years—have contributed many full-time paid war workers. In Merseyside and Manchester, the average age of dock workers in September 1943 was nearly 51 years.

Manpower Needs and Impending Measures

According to the statement of the Minister of Labor, mobilization is virtually complete, with the exception of the small number of persons who can be made available by new measures. Staffing for the war effort is complicated by the wastage of labor in industry, amounting to about 10 percent, and arising from many causes, including ill health, marriage, and pregnancy. Continual adjustment is necessary between those leaving and entering employment. Although there is some time loss when employees change jobs, the Minister stated that labor turnover in Great Britain is even lower than in Germany. It is officially estimated that the services of 700,000 additional persons will be needed in 1943–44.

As women constitute the main reservoir from which the required labor may be obtained, it was decided to reduce recruitment for the women's armed services and to register women for employment up to the age of 51 years (they were already registered through age 47). Other measures are to be taken to retain in the aircraft industry mechanics who were lent by the RAF and to reorganize the labor force already in the munitions industry. Priority has been given to aircraft production in line with the Cabinet decision to expand the bomber force. Finally, the conclusion has been reached that it is necessary to "direct" boys aged 16 and 17 years into the aircraft industry. The Government postponed this decision as long as possible, but conditions have reached such a state that boys must be taken if the aircraft industry is to be adequately manned. However, "directions" will be made only when there are vacancies, and the authorities will endeavor to avoid taking 16- and 17-year-old youths who are continuing their education.

The staffing of the mining industry presents special problems. To obtain the necessary labor force of 720,000 men and youths, 30,000 workers were required in September and another 20,000 will be needed in the coming year. Labor wastage must be made good. As the average age of the labor force is rising, young persons must be brought into the industry. In the past the situation was met by bringing mine workers back from the armed forces and industry, giving men aged 18 to 25 years the option of serving in the armed forces or the mines, and appealing to men of military age to volunteer. Surface mine labor has been directed compulsorily to undertake suitable underground mine work, even when the persons so directed would have preferred to enter the armed services. No man moved from one job in industry to another has the option of joining the armed forces.

The necessity of maintaining coal production has led the Government to adopt a policy whereby, if mine vacancies exist, men will be directed into mining in the future, whether or not they have been in the industry before. No distinctions are to be made, but men directed underground are to have the same right of appeal from decisions as the surface workers had.

Over 4,000 surface workers had already gone into the pits by September 1943 and more than 3,000 men from outside the industry

had gone into underground work. Men choosing underground mining in preference to service in the armed forces, totaled just under 5,000; 3,099 were placed in coal mines and 1,103 in other mining.

The Minister stated that additional labor was needed at once in the manufacture of cotton (10,000 to 12,000 workers), for the operation of busses (several thousand), and to perform the tasks of nurses and midwives.

The Minister of Labor took a firm position on strikes and absenteeism that would impede production, stating:

> I have certain powers for dealing with individuals taking part in a strike in connection with a trade dispute or who absent themselves from work without good cause, and I am ready to use those powers in appropriate cases according to particular circumstances. Joint machinery has been built up through which practically every grievance in industry can be dealt with. Unofficial strikes definitely impede the war effort and go a long way to destroying the effectiveness of the unions.

Mobilization Methods

The methods by which men and women have been allocated (according to their various qualifications and circumstances) to the fighting forces, civil defense, munitions industries, and other essential industries and services were described by the Parliamentary Secretary of the Ministry of Labor and National Service, in part, as follows:

Calling men for the armed forces.—Following careful planning, the National Service Act came into operation in September 1939. Under it compulsory registration for military service was applied to men from 18 to 40 years of age, inclusive.

> Since then men up to and including 50 years have been liable to conscription, and compulsory directions into the home guard and part-time civil defense duties have been instituted. In December 1942, a National Service Act permitted the medical examination of men called to the forces at the age of 17 years 8 months, but they are not posted to the forces until they reach the age of 18 years. To begin with, men are registered at employment exchanges, one age class or part of an age class at a time. They are allowed to express a preference for the Navy or Air Force if they wish but there is no guaranty that they will be called up to the service of their choice.

After registration, those men who are not reserved for industry are called for medical examination by a medical board and graded for military service. Those with certain kinds of skill are earmarked for one or another of the many service trades.

Up to June 1943 all men born between July 1, 1900, and September 30, 1925, were registered under the National Service Acts, the total number registered being 7,750,000. Men born before June 1900 have not been called to the forces, with the exception of doctors and dentists, who have been called up to age 45.

> *Calling women for the auxiliary services.*—The National Service (No. 2) Act of December 1941 introduced general powers to conscript women. Those called up for these services have statutory safeguards as do men regarding conscientious objection, postponement of call-up on grounds of exceptional hardship, and reinstatement on discharge from the services.
>
> Women in the 19–25 age groups have been called up while large numbers in these and other age classes have volunteered for service with the forces. * * *
>
> Married women and women with children of their own under 14 years of age living with them are exempted from compulsory service in the Women's Auxiliary Services but they can, of course, volunteer for these services.
>
> *Home guard and civil defense.*—Compulsory direction of men into the home guard and men and women into part-time civil defense duties has been exercised.

The home guard and civil defense service, together with the fire guard, consist in the main of volunteers. The services of those who perform them are given in addition to their ordinary work as civilians.

Schedule of reserved occupations.—To adjust the balance between the requirements of the forces for men and the needs of industry the schedule of reserved occupations was introduced in the first place. Those of the age of reservation for their occupation or above it were normally reserved for industry; others were normally called up for the forces. Alterations in the schedule were made from time to time to meet changing requirements.

This method proved a sufficiently good and flexible instrument as long as there was not an acute shortage of manpower. By the end of 1941, however, the situation had changed. Men could no longer be reserved for industry by virtue of their occupation. The sole test had to be the importance to the war effort of the work upon which they were engaged. Accordingly, the system of individual deferment was instituted. * * *

There is no Schedule of Reserved Occupations for women. Nevertheless, women who are engaged in certain vital war work or service are not called up. Other women may have their calling up deferred if they are engaged on work of importance in the war effort and if it is in the national interest that they should not be removed from their present work.

Man and woman power for industry.—The supply of man and woman power to the war industries is obviously of the utmost importance. The main problems have been (1) to secure the most effective use of labor, particularly highly skilled and heavy male labor and mobile female labor; (2) the training of workers to increase the supply of skilled and semiskilled labor; and (3) the proper control, supply, and distribution of the available skilled, semiskilled, and unskilled labor.

Use of labor.—To assist employers to make the best use of their labor, the Ministry of Labor and National Service has a staff of labor-supply inspectors with technical experience. These inspectors examine the way in which skilled workers are being used; advise how processes can be subdivided and simplified; and stimulate the training of workers in employers' establishments or in training centers supervised by the Ministry of Labor and National Service. In addition, it is their duty to encourage the upgrading of workers to more highly skilled work, and to introduce unskilled men and women to the greatest possible extent. Where feasible, they [in cooperation with Government departments] endeavor to secure the release of skilled men for transfer to other work of greater importance. * * *

Training.—Large numbers of workers are trained by employers in their own workshops and by the Government supply departments in their own factories. Besides this, training to a high standard of skill is given in Ministry of Labor training centers, supplemented by training at technical colleges and similar establishments. Training courses normally last from 4 weeks to 5 months. * * * Higher grade courses of training are given, whereby employers may get their skilled operatives trained to a higher degree free of charge in Government training centers, technical colleges, and industrial establishments where the equipment and instructors are available.

Control of labor.—The fall of France and the evacuation of the British Army from Dunkirk in May and June 1940 brought home dramatically the vital need for organizing the manpower of the country to re-equip the army. On May 22, 1940, the Emergency Powers (Defense) Act, 1940, was passed to strengthen the earlier legislation. Regulations made on the same day under the act gave the Minister of Labor and National Service the control of all labor, and power to direct any person of any age in Great Britain to perform any service in the United Kingdom which that person is capable of performing, at "the rate of pay for the job." * * *

The Restriction on Engagement Order of June 1940 was designed to stop the growing movement of men from firm to firm. This order, later extended, required workers to obtain and employers to give employment in engineering, building, and civil engineering, only through an employment exchange or an approved trade-union. Subsequently, this applied to electrical installation, shipbuilding and ship repairing, coal mining, the mercantile marine, and agriculture, in addition.

Vastly increasing numbers of women were going into industry in 1941. To insure direction to the places where they were most urgently needed, the Employment of Women (Control of Engagement) Order was made in January 1942. Again the employment-exchange machinery of the Ministry of Labor and National Service or an agency approved by the Minister were the channels used. This order filled a gap in the existing arrangements by insuring that

women of 20 to 30 years of age (subject to certain exceptions) could not change their jobs without the knowledge of the Ministry. In May 1942, the lower age limit was extended downwards to 18; in February 1943, the upper age limit was extended to 40 years.

In 1943, an order was made whereby employers must report to the employment exchanges whenever one of their workers, man or woman, leaves or is discharged, that is, men between 18 and 65 and women between 18 and 60. In this way the Ministry is able to have workers who leave jobs placed in accordance with the national interest.

Essential-work orders.—The Restriction on Engagement Order of June 1940 was part of a short-term policy but soon it was clear that greater powers were needed to secure the stabilization of labor in the essential war industries. The essential-work orders were accordingly devised. Unnecessary turnover of labor was prevented. An increase of production was secured by the resulting economy in the use of labor. By scheduling essential undertakings, it was possible to restrict drastically an employer's freedom to discharge a worker and an employee's freedom to leave his job. * * *

The essential-work orders go much farther than restriction on the right to leave or to discharge. When an undertaking has been scheduled it must pay every employee a guaranteed wage. The employee, of course, must be capable of and available for work and he must be willing to perform alternative service within reason outside his usual occupation when his normal work is not available for him.

The orders also make provision for dealing with absenteeism and persistent tardiness. It is now a punishable offense to be absent from work or persistently late without reasonable excuse. * * *

Altogether something like 8,300,000 workers are covered by the various essential-work orders.

Supply of labor.—Labor to meet the expanding war industries has been supplied by (1) the absorption of the unemployed; (2) the release of labor from the less-essential industries; (3) the release of labor through an increase in the hours of work and a reduction in the length of holidays; and (4) the mobilization of housewives and other classes not normally engaged in industrial employment.

Since the outbreak of war the unemployed in Great Britain have all been absorbed and, with the exception of a small number of unfit and immobile workers, there is no unemployment.

Labor has been released from the less-essential industries, such as cotton, wool, silk, and artificial silk, boots and shoes, leather goods, woodworking and paper, by cutting down their activities through limiting supplies of materials and concentrating production in a smaller number of factories. The manufacture of a very wide variety of articles is prohibited.

Hours of work and holidays were the subject of a statement by the Minister of Labor and National Service in May 1942. The fullest utilization of manpower and womanpower could be achieved only by insuring that all (including those in the less-essential industries) were working the fullest possible number of weekly hours. * * * In assessing the labor force required by industries or undertakings, the hours they are working and the holidays they are taking are considered. * * *

Redistribution of labor.—Large numbers of workers have moved from less-essential work to war production voluntarily. * * * In addition, men and women in specified age classes are registered under the Registration for Employment Order, 1941, and the labor is distributed in accordance with requirements.[1]

Woman registrants are called for interview at the employment exchanges in the order in which they are expected to be most readily available for work. After interview, "directions" to work may be given by the national service officer. Independent women's advisory panels have been attached to the employment exchanges, so that if doubt arises as to whether a woman should be directed to employment, a recommendation from this impartial body can be obtained. Persons directed to employment are allowed to appeal. Of all women registered only 26,000 have been compulsorily directed to war work. Many thousands have willingly transferred to war work even when it has meant leaving home.

Although industry is widely dispersed throughout the country, concentration of war production is inevitable in some areas, making a substantial transfer of labor necessary. At the interviews women are divided into two categories—mobile and immobile. Mobile women may be transferred to work beyond daily

[1] Registration of 10,000,000 males and females, respectively, had been completed when the Minister of Labor made his manpower statement on September 23, 1943.

traveling distance of their homes. If a woman considers that she is not mobile and the employment exchange does not agree, her case is put to the women's advisory panel, for advice. Apart from those women who volunteer to transfer to another area, women who have not reached the age of 19 years are not transferred away from home. Married women living with their husbands and the wives of men serving in the armed forces or the Merchant Navy are required, if their domestic circumstances permit, to take up war work. They are not, however, sent to work beyond daily traveling distance of their homes.

Great Britain has been divided into three different kinds of areas: (1) Those in which the supply of women, mobile and immobile, is not sufficient to meet the existing demands for urgent munitions work, which can therefore only be met by a substantial importation of women (i. e. scarcity areas); (2) those in which the existing demands require the services of every available woman in the area, mobile and immobile, but do not need importation; and (3) those in which the supply of immobile women is sufficient to meet existing demands, the mobile women thus being available for transfer. * * * Only mobile women from the last-named areas are transferred to munitions vacancies in the first-named areas.

Great Britain is divided into 11 regions—demand and supply regions. A demand region is linked with one or more supply regions whose duty it is to supply mobile women to munitions vacancies in scarcity areas in their linked region.

Part-time employment.—The Minister of Labor and National Service is empowered to direct persons to part-time employment. Large numbers of women are not available for full-time work because of their domestic responsibilities, and early in 1943 it was decided, in view of its growing importance, to direct women to part-time work. Directions are issued to women between the ages of 18 and 45 and not to women with children of their own under 14 years of age living with them.

Welfare arrangements.—* * * Welfare arrangements inside British factories are controlled by law by means of the factories acts and by regulations made under the acts in respect of such matters as safety, lighting, heating and ventilating. Much has been done to secure adequate feeding facilities, to extend welfare personnel, and to encourage medical supervision and the provision of factory nurses.

A welfare organization in respect of arrangements outside the factories has also been developed by the Ministry of Labor. Arrangements in connection with the transfer of workers include the establishment of reception centers and clearing hostels and accommodation for transferred workers (who are cared for during sickness.) Adequate transport facilities between home or lodgings and works have had to be organized. The care of young children of women war workers, the shopping problems of industrial workers, and the recreation and entertainment of workers have been given the most careful study. * * *

Consultation with industry.—On the outbreak of war the Minister of Labor and National Service set up under his own chairmanship, a National Joint Advisory Council consisting of representatives of the Trades Union Congress General Council and the British Employers' Confederation. * * * When, in May 1940, the Minister was given full powers of labor control, the Council appointed a joint consultative committee to advise him on matters arising out of such legislation. * * * The Council has been consulted on major matters of policy, for example, the essential-work order.

Joint bodies representing organized employers and workpeople also advise the Minister on matters affecting particular industries and services; and on problems affecting women he has the advice of a Women's Consultative Committee. The value of this joint consultation cannot be overestimated.

Industrial Relations

Union Agreements in Agricultural-Machinery Industry[1]

THE agricultural-machinery industry, for purposes of this report, includes establishments which in 1939 were primarily engaged in the manufacture of agricultural machinery and equipment, and new plants established since 1939 to manufacture these products. The industry includes agricultural tractors, tractors used on construction work, and industrial tractors, but excludes agricultural hand tools.[2] Many of these establishments are currently engaged in the manufacture of tanks and other ordnance production and employment has expanded considerably as a result of the war program. In September 1939 there were approximately 56,000 workers in this industry; by September 1943 the number had grown to almost 96,000.

Although a relatively small number of large plants dominate the industry, agricultural machinery is also manufactured in a considerable number of small plants. Proximity to the market is probably the chief factor influencing the location of the farm-machinery industry. The grain farms of the Midwest constitute the largest market for the output of agricultural machinery, and Illinois and Wisconsin are the leading producers of farm machinery in the country.

Collective Bargaining in the Industry

Approximately 70 percent of the workers in the agricultural-machinery industry are covered by union agreements, more than three-fourths of these being employed in Illinois and Wisconsin.[3] Most of the large plants are covered by agreements, but the extent of union organization among the small plants is somewhat less. Of the 65 agreements in the farm-machinery industry of which the Bureau has record, 7 cover over 2,500 workers each; 9, between 1,000 and 2,500 workers each; and 9, between 500 and 1,000. The 7 largest plants under agreement employ nearly two-thirds of the organized workers.

Almost 55 percent of the agricultural-machinery workers under agreement are represented by the United Farm Equipment and Metal Workers of America (C. I. O.). The United Automobile, Aircraft and Agricultural Implement Workers of America (C. I. O.) has agreements covering nearly 20 percent of the organized workers, while federal labor unions of the A. F. of L. represent about 15 per-

[1] Prepared in the Bureau's Industrial Relations Division by Everett M. Kassalow.

[2] The 1939 Census of Manufactures divides the agricultural-machinery industry into two classes; one includes all agricultural machinery except tractors, the other is limited to tractors. These two classes are considered jointly in this article.

[3] This report is confined to agreements negotiated by unions which have agreements with more than one company. National Labor Relations Board election victories, involving about 6,000 workers, have recently been won by various unions in this industry. However, as these unions have not yet negotiated agreements, they are not included in this report.

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cent and the United Electrical, Radio and Machine Workers of America (C. I. O.) represent more than 5 percent. Other agreements in the industry were negotiated by the International Association of Machinists (A. F. of L.), United Steelworkers of America (C. I. O.), the International Union of Molders and Foundry Workers of North America (A. F. of L.), the United Automobile Workers of America (A. F. of L.), the Pattern Makers League of North America (A. F. of L.), and the Metal Trades Department (A. F. of L.).

Unionization in the industry did not begin on a major scale until about 1937, although a few plants were under agreement before that date, and some of the larger companies, notably the International Harvester Co., had established employee-representation associations. In some cases, organization of these plants by international unions was facilitated by the existence of these representation plans and many of the officers and much of the machinery of the inside organizations were absorbed by the newly established locals of the international unions.

The United Farm Equipment and Metal Workers of America was originally a division of the Steel Workers Organizing Committee (C. I. O.). In July 1938, this group of locals withdrew from the Steel Workers and established the Farm Equipment Workers Organizing Committee, which in September 1942 was granted an international charter by the C. I. O. and adopted its present name.

The United Automobile, Aircraft and Agricultural Implement Workers of America (C. I. O.) secured an agreement in 1937 with the Racine (Wis.) plant of the J. I. Case Co., one of the largest companies in the industry. This union was originally established to organize workers in the automobile industry, but in 1937 its constitution was amended specifically to include agricultural-implement workers. Between 1938 and 1941, several attempts were made to merge the Farm Equipment Workers and the United Automobile Workers, but without success.

The Pattern Makers League of North America (A. F. of L.), the International Molders and Foundry Workers Union of North America (A. F. of L.), and the International Association of Machinists (A. F. of L.) have each negotiated a number of agreements covering certain skilled groups in a number of the large plants in the industry. In nearly all cases the production workers in these plants have been organized by other unions. Since this report deals primarily with the production workers, the agreements for these special groups are not included in the following discussion.

Coverage and Duration of Agreements

The following is an analysis of 36 agreements in the files of the Bureau of Labor Statistics, which cover nearly 90 percent of the employees in the industry working under agreements. All of these agreements were in effect during all or most of 1943; a few have expired during recent months and at present are subject to renegotiation. The greatest number of agreements were originally negotiated for 1-year periods, but they are automatically renewed from year to year unless a 30- or 60-day notice of intention to change or terminate has been filed by one or both parties. Nine agreements, including six for the International Harvester plants, are in effect for the duration of the war.

Maintenance workers as well as production workers are included under the terms of most of the agreements. Twenty-nine of the 36 agreements specifically exclude persons who perform supervisory functions, variously defined as foremen, assistant foremen, or supervisors; the others make no reference to supervisors or foremen in the coverage clauses.

Among the larger plants under agreement, which are included in this report, are the following:[4]

Company and plant	*Union*
Allis-Chalmers Manufacturing Co.:	
Springfield, Ill.	United Farm Equipment and Metal Workers of America (C. I. O.).
David Bradley Manufacturing Works:	
Bradley, Ill.	Metal Trades Council (A. F. of L.).
J. I. Case Co.:	
Racine, Wis.	United Automobile Workers (C. I. O.).
Rock Island, Ill.	Do.
Rockford, Ill.	Do.
Caterpillar Tractor Co.:	
Peoria, Ill.	United Farm Equipment and Metal Workers of America (C. I. O.).
Cleveland Tractor Co.:	
Cleveland, Ohio	Federal Labor Union (A. F. of L.).
Deere & Co.:	
John Deere Harvester Works, East Moline, Ill.	United Automobile Workers (C. I. O.).
International Harvester Co.:	
Tractor Works, Chicago, Ill.	United Farm Equipment & Metal Workers of America (C. I. O.).
McCormick Works, Chicago, Ill.	Do.
East Moline Works, East Moline, Ill.	Do.
Richmond Works, Richmond, Ind.	Do.
Farmall Works, Rock Island, Ill.	Federal Labor Union (A. F. of L.).
Milwaukee Works, Milwaukee, Wis.	Do.
Massey-Harris Co.:	
Racine, Wis.	United Automobile Workers (C. I. O.).
Batavia, N. Y.	United Steelworkers of America (C. I. O.).
Minneapolis-Moline Power Implement Co.:	
Minneapolis, Minn.	United Electrical, Radio and Machine Workers of America (C. I. O.).
Moline, Ill.	Do.
Oliver Farm Equipment Co.:	
South Bend, Ind.	United Farm Equipment and Metal Workers of America (C. I. O.).
Charles City, Iowa	Do.
Battle Creek, Mich.	United Automobile Workers (A. F. of L.).

[4] Some of these unions have agreements with additional plants of the same and other companies, but these are omitted because they are not classified by the Census as belonging to the agricultural-machinery industry. Current agreements for the following organized plants in the industry were not available at the time this report was prepared, and they are, therefore not included in the analysis: Allis-Chalmers Manufacturing Co., La Porte, Ind. (United Farm Equipment and Metal Workers of America, C. I. O.); Oliver Farm Equipment Co., Springfield, Ohio (United Automobile Workers of America, C. I. O.); Deere and Mansur Works of Deere & Co., Moline, Ill. (United Farm Equipment and Metal Workers of America, C. I. O.).

Union Status [5]

The importance of the National War Labor Board in influencing the pattern of collective-bargaining relationships is clearly revealed in this industry. Maintenance-of-membership clauses are included in 17 agreements which cover more than 80 percent of the workers under the 36 agreements. The clauses were incorporated as a result of National War Labor Board orders in 13 of the cases, including most of the large plants, namely, the three J. I. Case Co. plants, the Oliver Farm Equipment Co. plants at Charles City and South Bend, the Caterpillar Tractor Co., and the six International Harvester plants.[6] Among the four plants which adopted maintenance-of-membership clauses voluntarily are the John Deere Harvester Works and the Springfield plant of the Allis-Chalmers Manufacturing Co.

Only a small number of workers in this relatively newly organized industry are employed under closed- or union-shop conditions which require union membership as a condition of employment. Two of the nine agreements which provide for a closed or union shop exempt those employees who were not members prior to the signing of the agreement; however, all new employees must join the union. Only one large plant in the industry operates under a union-shop plan, namely, the Minneapolis-Moline Power Implement Co. at Minneapolis, which has had bargaining relationships with the United Electrical, Radio and Machine Workers for a number of years.

Ten of the 36 agreements, covering between 10 and 15 percent of the workers under agreement, provide no recognition beyond that of establishing the union as the sole bargaining agent. These agreements are chiefly confined to smaller plants, although they include the Cleveland Tractor Co., the two Massey-Harris plants, and the Oliver Farm Equipment Co. plant at Battle Creek.

Union activity or solicitation of members on company time is specifically prohibited in most of the agreements. The Allis-Chalmers agreement, however, states that the union may solicit membership upon company premises outside of working hours, although the company reserves the right to withdraw this privilege.

COLLECTION OF UNION DUES

None of the agreements in the agricultural-machinery industry provides for an automatic check-off of union dues by the company, and only four agreements permit individual employees to authorize deductions from their pay for union dues. Two of these are with plants which recognize the union as the sole bargaining agent, one is a union-shop agreement, and the fourth includes a maintenance-of-membership clause.

Although some of the agreements specifically prohibit the collection of union dues on company time or property, the John Deere Harvester Works and the Allis-Chalmers agreements permit the collection of union dues during lunch or before or after work.

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[5] For a detailed explanation of the various types of union status see Monthly Labor Review, February 1943 (pp. 284–290): Types of Union Recognition in Effect in January 1943.

[6] In the International Harvester cases the National War Labor Board did not grant maintenance-of-membership until a majority of the members in each local had voted in favor of acceptance of such a clause. To date, this is the only case in which the Board has included such an election as a prerequisite in a maintenance-of-membership order.

Wage Provisions

All but one of the agreements covering large plants provide for piece work as well as time work, but only about half of the agreements with smaller companies mention both types of rates. Detailed occupational-wage listings are provided in only eight agreements, although one other agreement specifies an addition of 5 cents an hour to the regular rate during the time any employee is called upon to do supervisory work. Four of the agreements with occupational listings and 11 other agreements specify plant-wide minimum rates. While these minimum hourly rates range from 40 to 75 cents, 13 agreements provide a plant minimum of at least 60 cents for men. Minimum rates tend to be somewhat higher in the large plants than in the smaller plants.

Four agreements have lower plant minimum rates for women workers than for men, the differences ranging from 10 to 15 cents per hour. Two agreements specifically prohibit different rates for men and women doing the same kind of work. In the remaining agreements no reference is made to wages of men and women, as such.

Eleven of the 15 agreements containing plant minimum rates provide hiring rates for new, inexperienced workers, which are below the general minimum scale. In nine of these agreements the differences between hiring and minimum rates range from 5 to 10 cents; in the tenth agreement the difference is set at 3 cents and in the eleventh at 22 cents. In six of these plants, the new employee is advanced directly to the minimum hourly rate after intervals which range from 30 days to 6 months, while in the other five, the minimum is reached by means of successive increases over a period varying in the different plants from 90 days to 2 years.

PIECE-RATE SYSTEMS

Most of the 28 agreements which mention piece work provide for some form of union participation in rate setting. In two of the smaller plants the union has a voice in determining individual rates. In one of these, the agreement states that the management may modify old rates or set new rates only by mutual agreement with the designated representative of the union, while in the other, the agreement provides that where piece rates prevail or are to be instituted, such rates shall be established by a joint employer-union committee. Sixteen agreements grant the union the right to negotiate with management on disputed rates; for example, the Massey-Harris Co. agreement (Batavia, N. Y.), states: "In the event that an average piece worker claims inability to make the basic rate, then a time study shall be promptly made by the company, and on the basis of such a time study, the company and the union will make mutually satisfactory disposition of the grievance."

In addition to granting the union the right to negotiate with management over disputes arising in connection with piece rates, some agreements provide specific safeguards for piece workers. The Cleveland Tractor agreement, for example, provides:

> No production workers engaged in work which normally carries a bonus rate shall be required to work for more than 2 days at the established day rate by reason of lack of tools or time-study men. At the end of such 2-day period, if a permanent bonus rate has not been established, a temporary bonus rate shall

be put into effect; otherwise the operator shall be paid at the rate of 150 percent of the day rate.

The J. I. Case Co. agreement covering the Racine plant states:

If any established piece rates do not permit a normal operator working at a reasonable pace to earn at least 10 cents per hour in excess of the base rate, the job shall be restudied and the revised piece price made retroactive to the date of the filing of the grievance * * *. If an employee shall fail to earn the base rate on any assigned operation because of the failure of the company to maintain jigs, tools, or fixtures, or by reason of faulty stock, or lack of materials, or because of working on short runs, he shall be paid not less than base rate * * *. Employees who ordinarily and usually work on piece-work operations shall, when employed on sample or experimental work or when detailed to serve as instructors, be paid not less than 5 cents per hour above their average hourly earnings on piece work.

INTERIM WAGE ADJUSTMENTS

None of the agreements studied for this industry contains provisions for automatic reconsideration of wages if the cost of living decreases or increases. In 21 agreements there is no reference of any kind to interim wage adjustments, thus implying that the general wage rates specified in the agreement, or those existing at the time the agreement was signed, are to remain for the duration of the agreement. Of the 15 which permit reconsideration of wages, 5 allow the question to be brought up at any time, while the others provide specified intervals. Thus, five of the International Harvester agreements permit the review of wages 6 months after the signing of the agreement and thereafter every 2 months upon 30 days' notice by either party. Expressed in one agreement and implied in the others, the basis for reconsideration of wages is "to meet changing conditions regarding hours, wages, and working conditions."

MINIMUM CALL PAY AND RECALL FOR OVERTIME

Payment of a minimum amount to employees who report at their hourly shift time, but are not employed a full shift, is provided in all agreements except a few with small companies. Not quite half of the workers, including those at the Caterpillar Tractor Co., the Allis-Chalmers plant, and the John Deere Harvester Works, are guaranteed a minimum of 4 hours' reporting pay. The greatest proportion of the other workers receive 2 hours' pay, although some are allowed pay for 3 hours.

The same minimum call pay probably applies to work outside regular hours in most plants, but only about half of the agreements specifically provide such guaranties for workers who are recalled after their regular shifts. Some of these set overtime rates for the total minimum time guaranteed.

SHIFT DIFFERENTIALS

With the institution of round-the-clock production in an increasing number of industries, the payment of shift bonuses has taken on special significance. All the agreements in this industry, except some covering small plants, refer to night operations, and about 80 percent of the workers under these agreements are allowed a wage differential for night work. Four of the eight agreements which refer to night work but do not establish night differentials provide that, if the company establishes 3 shifts in the plant, employees on all shifts are to

receive 15 minutes on company time at the regular hourly rate for the lunch period.

Predominantly in this industry, the same bonus is provided for the third as for the second shift, some of the agreements specifically mentioning two night shifts while others merely say "all night work." Under agreements providing night differentials nearly 40 percent of the workers covered are allowed 5 percent over day rates for all night work, and 30 percent are allowed 10 percent over day rates.

The proportions of workers under agreements providing shift differentials are shown in the following, table for the various shifts.

Wage Differentials for Night Work in Agricultural-Machinery Industry

Proportion of workers covered by differentials	Differential paid for—	
	Second shift	Third shift
8 percent	3 cents per hour	5 cents per hour.
20 percent	10 cents per hour	10 cents per hour.
5 percent	5 percent over day rate	5 percent over day rate.
3 percent	5 percent over day rate	10 percent over day rate.
26 percent	10 percent over day rate	10 percent over day rate.
	General night-shift differentials	
3 percent	5 cents per hour.[1]	
21 percent	5 percent over day rate.	

[1] One agreement provides a 5-cent differential for "regular" night workers, and 2 cents for employees working on rotating shifts.

Pay for Overtime, Week-End Work, and Holidays

Overtime pay for all work in excess of 8 hours per day or 40 hours per week, at time and a half, is provided for all production workers in all the agreements and for maintenance workers in nearly all.

Although many of the agreements provide premium rates for Saturday and Sunday work, the majority of these were negotiated before the effective date of Executive Order No. 9240.[7] In 21 agreements, most of which are for smaller companies, specific reference is made to Saturday and Sunday or to Sunday only, and most of these exclude watchmen, firemen, and other maintenance workers from week-end premium rates. Without exception the larger-company agreements which refer to Saturday and Sunday provide time and a half for Saturday work and double time for Sunday work. Some of the small plants provide time and a half for both days, while others pay double time for Sunday with no mention of Saturday.

Most of the agreements for the large plants provide time and a half for the sixth day and double time for the seventh day worked in a workweek with no premium for Saturday and Sunday as such. The Caterpillar Tractor Co. agreement specifically states that this provision on premium pay has been included in order to conform with the Executive order, and another agreement provides for the restoration of premium pay for Saturday and Sunday work as such after the war emergency.

[7] Agreement provisions regulating pay for week-end work have been superseded by Executive Order No. 9240 "on all work relating to the prosecution of the war." The order prohibits premium pay for Saturday and Sunday work as such and makes the payment of double time for the seventh consecutive day of a regularly scheduled workweek mandatory. Payment of a premium rate on the sixth day is permitted if it has been paid previously either for the sixth day of work or for Saturday.

Under the Executive order, even where no work is performed on a holiday, this day is counted as a day worked in computing the sixth day in a workweek, unless the agreement has a provision to the contrary. None of the agreements studied included such a statement; one agreement, however, specifically provides for time and a half after 32 hours in a holiday week.

HOLIDAYS

None of the agreements in the agricultural-machinery industry provides pay for holidays not worked, but nearly all provide penalty rates for work performed on designated holidays. The great majority of the agreements conform to the Government provision that time and a half be paid for work performed on six designated holidays.[8] However, 10 agreements, which were negotiated prior to Executive Order No. 9240, fix double-time rates and three specify seven holidays, while several make no reference to holidays.[9] One provides for pay at the rate of time and a half during the "war emergency", with the return to double time after the war. The six International Harvester agreements require time and a half on those jobs which customarily operate on a 7-day basis and double time for emergency work on legal holidays. Five agreements, all with smaller plants, specifically exclude watchmen, firemen, janitors, and similar nonproduction workers from the special holiday rate.

Paid Vacations

Almost 95 percent of the workers under agreement are entitled to paid vacations after meeting specified service qualifications. Of the eight agreements which do not contain paid-vacation provisions, only one is with a large company.

About 55 percent of the workers are covered by agreements which provide minimum and maximum vacation allowances based on length of service. The six International Harvester Co. plants, the two Minneapolis-Moline Co. plants, and the John Deere Harvester Works agreements provide 1 week's vacation with pay after 1 year of service and 2 weeks with pay after 5 years of service. Several agreements of smaller companies provide graduated vacation allowances, ranging from 3 days after 2 years' service and 1 week after 3 years, to 1 week after 1 year and to 3 weeks after 25 years' service.

The Caterpillar Tractor Co. employees receive 2 weeks' vacation, with pay equal to 4 percent of the employee's gross earnings during the preceding company fiscal year. All of the remaining agreements provide 1 week's vacation allowance, the service requirements ranging from 10 months to 2 years.

Leave of Absence

Leaves of absence for personal reasons, such as illness in the family and temporary physical disability, are permitted in 27 of the 36 agreements and cover over 95 percent of the total workers. While

[8] Executive Order No. 9240 requires the payment of time and a half on New Year's Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day, and either Memorial Day or one other holiday of greater local importance, and prohibits premium pay for any other holiday.

[9] The terms of the Executive order apply to all plants engaged in war production and would, therefore supersede the provisions of these agreements.

some agreements limit such leave to 6 months or less, in most of them no time limits on leave are mentioned. Three of the International Harvester agreements, which have no limits for other reasons, stipulate that pregnant employees are to be granted 1 year of leave. Fifteen agreements, including five which do not specify any time limits on leave, provide cumulation of seniority during an employee's absence. The seniority status of the employee on his return is not mentioned in the other 12 agreements.

Leave of absence for union business is provided in 22 agreements, including almost all of the larger companies and covering approximately 90 percent of the workers. The extent of this leave varies from 30 days to an indefinite period, although most permit at least 1 year's leave for union business. Cumulative seniority for employees on leave for union business is provided for in at least 16 agreements; under the others the seniority status is not clear.

Seniority Rules

Seniority rights, acquired after serving specified probationary periods, are provided in all but 1 of the 36 agreements. Although probationary periods vary from 15 days to 1 year, the greater number require at least 3 months. Those agreements which require 6 months or longer before seniority begins are with large companies. These unusually long periods are due to the normally seasonal nature of the industry and to the fact that such companies periodically employ large numbers of temporary employees.

Seniority rights, once acquired, apply to lay-offs and rehiring, and in many cases also affect promotions. Under a few agreements senior employees have first choice of shifts and vacation time.

Employees may exercise their seniority rights in connection with lay-offs and rehiring, or promotions, only in the unit to which seniority applies. In 19 agreements, covering more than 55 percent of the workers, the unit specified is the department; in 5 agreements (all with very small plants), seniority is on a plant-wide basis, but one of these specifies that seniority applies by occupation. Both the plant and the department are specified as units in 9 agreements, covering more than 40 percent of the workers. Included among these are the 6 International Harvester agreements, which state that employees obtain department seniority after 6 months, and plant seniority after 1 year. Only 2 agreements, both with small plants, fail to define the unit to which seniority applies; one of these states that "seniority will be recognized insofar as possible * * * but in our factory the work is in so many departments that no further statement of seniority can be given definitely."

LOSS OF SENIORITY

Under most agreements seniority is generally retained during periods of enforced lay-offs—usually limited, however, to a specified length of time, after which seniority rights are lost. Nineteen agreements, covering more than 95 percent of the workers under agreement, specify periods from 1 to 5 years, although the greatest number of these provide for the retention of seniority rights for at least 3 years following any lay-off; in a few agreements the time varies with the

length of the employee's previous service. Eight agreements, covering a little more than 5 percent of the workers, set no time limit on the retention of seniority by employees during lay-off. The others do not indicate how a lay-off affects the employee's seniority status.

Failure of a laid-off employee to return to work within a specified time—from a few days to a few weeks—when requested by the company to report, results in loss of seniority under most agreements, although in a few cases laid-off employees are permitted to reject offers of temporary employment without loss of seniority. One agreement, which establishes no time limit for retention of seniority, requires laid-off employees to report to the company every 3 months.

In addition to conditions arising from lay-offs, other grounds for loss of seniority mentioned in agreements include failure to report to work at termination of a leave of absence or furlough, engaging in other employment without consent of the company, and inability of the company to find the worker when desiring to notify him to return to work.

LAY-OFF AND REHIRING

Seniority is the determining factor in selecting workers for lay-off and rehiring, according to nearly all the agreements. When lay-offs occur and more than one type of work is included in the plant or department unit to which seniority applies, longer-service employees may displace shorter-service employees on other occupations, provided they are "capable of doing the work of the shorter-service employee." In some cases, the employee who displaces or "bumps" a worker with less seniority is put on probation for a period ranging from 3 days to a few weeks, and if it is found that he is not performing satisfactorily on the new job, he may be laid off.

Two agreements, covering a small number of workers, specify that in lay-offs seniority is to be given consideration along with such other factors as experience, efficiency, physical fitness, family status, etc. Two other agreements which include seniority provisions do not specify the status of senior employees in connection with lay-offs and rehiring. One agreement provides that at the termination of the war or national emergency, "all male employees will be given prior rights of employment over female factory employees," but also states that "wherever possible, preference in hiring will be given to the wives of the men serving in the armed forces of the country."

Lay-off notice.—Advance notice of lay-offs to employees or to the union, or to both, is required in about half of the agreements. In most cases the length of this notice varies from 1 to 3 days, although one agreement provides for 2 weeks' notice to employees with at least 1 year of service. One agreement with a small plant provides that a regular employee whose employment is permanently terminated is to be given 1 week's notice or 1 week's pay in lieu thereof.

Lay-off of union stewards.—Eighteen agreements, covering more than three-fourths of the workers under agreement, encourage continuity of grievance-adjustment personnel by providing that the union's shop committeemen and stewards are to head the company seniority-rating lists as far as lay-offs are concerned. The number of union officials with preferred seniority status is frequently specified in the agreement, and such officials must, of course, be capable of performing the work of the employees they may displace.

Work sharing.—Thirteen agreements provide for work sharing before lay-offs are made. These agreements cover most of the large companies, including the six International Harvester plants. Nearly all of them provide for the lay-off of probational employees before work sharing commences. In the Cleveland Tractor agreement, all workers with less than 4 years' seniority, and in another agreement with a smaller company, employees with less than 2 years' seniority, shall be laid off before work sharing is instituted.

Eleven agreements provide that work will be shared until the hours are reduced to 32 per week. Two agreements establish minimum workweeks of 36 hours and 30 hours, respectively, before lay-offs are to be made on the basis of seniority.

PROMOTIONS

Only 1 agreement with a small plant provides for promotion on the basis of seniority alone. In 21 agreements, covering almost three-fourths of the workers, seniority is to be considered along with other factors, such as ability and skill. The greatest proportion of these agreements include a clause similar to that found in the Caterpillar Tractor agreement, stating that in promotions, "length of service will govern whenever qualifications for the next job are approximately equal." A few agreements specifically provide that disputes arising out of promotions may be referred to the grievance machinery. The agreement which provides that seniority alone is to govern promotions limits seniority to department units. Several agreements do not include procedures for promotion; one of these specifies that promotions are to be the exclusive prerogative of management and the others say nothing about the matter.

Discharge

Specific reasons for discharge are included in only a few agreements, the majority merely stating that employees are to be discharged only for "just" or "reasonable" cause. Typical of those giving specific causes is the Oliver Farm Equipment agreement, covering the Battle Creek plant, which states:

> Causes for discharge may be for insubordination, dishonesty, inefficiency or violation of shop rules. It is agreed that the decision to discharge an employee must rest upon evidence that is conclusive and that the reason for discharge will be clearly stated to the employee.

Most of the agreements provide for appeal of discharge cases and where the subject of discharge is not specifically mentioned it can be assumed that discharge cases may be submitted to the regular grievance machinery. In 20 agreements, covering about 75 percent of the workers, the union is expressly granted the right to submit the cases of discharged workers under the regular grievance procedure, 17 of these specifying that if the employee's discharge is found to be unjust, he is to be reinstated with full compensation for time lost. Discharge complaints must be presented to the company within a few days after an employee's discharge, and are to be disposed of within a specified period, usually 5 days. The International Harvester Co. agreements provide that "the company must be notified of a claim of wrongful suspension or discharge within 3 working days after same occurs and

the case shall be taken up promptly and diligent efforts made to dispose of it within 5 working days."

Three agreements—two with the Minneapolis-Moline Co. plants and one with the John Deere Harvester Works—provide that before any employee may be discharged the company must give advance notice to the steward of the department in which the employee is working. The John Deere agreement further specifies that discharged employees who so desire will be granted a hearing, in which the employee, union, and company will participate. If it is decided that the employee has been unjustly discharged, he is to be reinstated to his former status, with no loss in pay.

Military Service and War Jobs [10]

Reemployment and seniority rights of employees who volunteer or are drafted for military service are referred to in 26 of the 36 agreements, covering more than 80 percent of the workers under agreement. Most of the agreements state that upon presentation of an honorable-discharge certificate the employee is to be restored to his former position, or one of similar status and pay, with no loss in seniority, unless the company's circumstances have so changed as to make this impossible.

Nine agreements, including those of the six International Harvester plants, the two Minneapolis-Moline agreements, and the Allis-Chalmers agreement, include pledges by the company to pay the premium on the absent employee's group-life-insurance policy for at least 1 year. Four agreements require the company to pay a bonus equal to 1 month's salary to all employees entering military service and two specifically provide the payment of earned vacation bonuses.

War jobs.—Six agreements, all but one of which are with large companies, refer to the seniority status of employees who transfer or are transferred to other plants engaged in war work. Two, including the Massey-Harris (Racine) agreement, merely state that seniority shall accumulate for workers who are drafted by the Government for occupational as well as military reasons. Two Oliver Farm Equipment Co. agreements (Charles City and South Bend) provide, that if the company "is unable to give full-time employment to an employee, it will, at the request of the employee, grant him a leave of absence without the loss of seniority rights to obtain full-time employment in another defense industry." Further, the agreements state that "added consideration" will be given to any employee "whose service is of a special nature and may be necessary for governmental defense projects."

Two of the International Harvester agreements provide special protection for employees who are laid off by the company and subsequently enter "defense" work:

> Where an employee having seniority rights with the company and working on nondefense production is laid off and obtains defense employment with another company, and that fact is properly certified to the International Harvester Co., he will not report back for nondefense production work in order to protect his seniority so long as he retains the defense employment for which he was certified. If he shifts from one defense employment to another there must be a recertification as to his new defense employment.

[10] For a more complete discussion of this problem, see Monthly Labor Review, December 1942 (p. 1167): Military Service and War-Job Clauses in Union Agreements.

These two agreements further state that if any employee who is working on nondefense production wishes to accept "defense employment with another company * * *" he "may be released with full protection of * * * seniority rights" if the International Harvester Co. agrees that he "can be spared or loaned."

Employees shifted to war-work departments, temporarily created during the national emergency, are protected from loss of seniority in the John Deere Harvester Works agreement, which provides that employees "will retain and accumulate seniority" in the departments "from which they were transferred to war work." New employees in these temporary departments accumulate seniority, "and after the war will carry this seniority to whatever division they may be transferred."

Safety and Sanitation

Clauses relating to health, safety, and sanitation are contained in most of the agreements. Such clauses generally consist of pledges by the employer "to furnish healthful working conditions at all times and to provide adequate and modern devices with regard to safety and sanitation." Disputes arising under this article are usually referred to the regular grievance machinery.

About half of the agreements provide for union participation in the administration of plant health and safety rules, generally by means of a special safety committee. The Caterpillar Tractor Co. agreement, for example, states:

> It is agreed that the union will appoint a safety committee of three to encourage the observance of safety rules and the furtherance of the safety and sanitation programs, with which committee the company's safety representatives will meet once each month at a mutually agreeable time.

Three of the International Harvester Co. agreements, in addition to providing for union participation in the administration of plant safety rules, establish 15-minute rest periods in the morning and afternoon for female employees.

Adjustment of Disputes

All but one of the agreements establish formal machinery for the adjustment of grievances and the majority provide some form of arbitration procedure. As might be expected, the agreements covering the larger plants contain more detailed provisions on the presentation of grievances, the functions of shop stewards, etc., than do those covering smaller plants. In only a few cases is the term "grievance" defined; for example, the Caterpillar Tractor agreement defines a grievance as "any difference which might arise between the parties or between the company and an employee covered by this agreement, as to (1) any matter relating to wages, hours of work, or working conditions not covered by this agreement; and (2) any matter involving the interpretation or violation of any provisions of this agreement."

GRIEVANCE MACHINERY

Agreements in the agricultural-machinery industry vary considerably with respect to the procedures to be used in presenting grievances to the foremen. Under the terms of 20 agreements (including the 6

International Harvester plants), which cover almost 85 percent of the workers, the employee has the option of presenting grievances to his foreman alone or of being accompanied or represented by his shop steward or other designated union official. Eight agreements, covering small plants, require the employee to consult with his foreman or other subordinate company official before taking his grievance to the union. Under the terms of 6 agreements, the union steward presents the grievances to the foreman, while under 2 others the aggrieved employee must accompany the union representative.

If grievances are not adjusted through this procedure, the agreements generally provide that the shop steward shall take up the dispute with the department foreman and, if necessary, with the plant superintendent. If the dispute is not settled at this stage, it is referred to the entire plant grievance committee and some designated company representative. Five of the International Harvester agreements provide that if the grievance cannot be adjusted by the employee, or his steward, and his foreman, it is to be referred directly to the shop committee of the union and a committee appointed by the plant superintendent.

When a dispute is not settled by the entire plant committee and the management representatives, the union may usually call upon an outside representative, frequently a national official of the union, who attempts to adjust the difference in conference with top representatives of the company.

To guard against prolonged delay in the disposition of disputes, almost all the large company agreements impose time limits on the operation of the grievance machinery and many provide for frequent regular meetings between the plant grievance committee and the management.

PAYMENT DURING ADJUSTMENT MEETINGS

Shop stewards are paid for time spent in attendance at all formal grievance meetings with management held during working hours, under the terms of 11 agreements, covering more than 40 percent of the workers. Under 10 additional agreements, covering almost 30 percent of the workers, stewards receive pay for time lost only if the meetings are called by management. Four agreements, covering slightly over 5 percent of the workers, specifically state that attendance at grievance meetings is on the employee's own time. No mention is made in the remaining agreements of payment or nonpayment for time spent in adjusting grievances.

ARBITRATION

Arbitration by an impartial individual or agency, when negotiations between the highest union and company officials fail to result in a settlement, is provided in 19 agreements, covering three-fourths of the workers. Fourteen of these, covering more than half of the workers, provide that unsettled disputes are to be submitted to arbitration at the request of either party. Among these are two International Harvester plants (Rock Island and Milwaukee), the Allis-Chalmers plant, the Minneapolis-Moline plant at Minneapolis, and the Caterpillar Tractor plant.

Five agreements (including the four agreements between the International Harvester Co. and the United Farm Equipment and Metal Workers of America) provide for arbitration only by mutual consent of both company and union. Under such a clause, the party which is satisfied with existing conditions may refuse to submit a disputed issue to arbitration and the aggrieved party must either yield or resort to a strike or lockout.

Among the 17 agreements which make no provision for arbitration are those covering the J. I. Case plant at Racine, the John Deere Harvester Works, the Oliver Farm Equipment Co. plants at South Bend and Battle Creek, the Cleveland Tractor Co., and the Racine plant of the Massey-Harris Co.

The Allis-Chalmers agreement provides for a permanent impartial referee, selected and compensated by both parties, to whom unsettled grievances are referred for final decision. In the other 18 agreements which make provision for arbitration, the arbitrator is chosen at the time of a dispute. If the company and union are unable to agree on the choice of an impartial arbitrator, 12 agreements provide that the selection is to be referred to a designated public agency. Most frequently named agencies are the U. S. Conciliation Service and the National War Labor Board, although one agreement delegates the choice to the Illinois Department of Labor, and another to a State judge. Most of the agreements which include maintenance-of-membership clauses state that any dispute arising under this particular provision, not settled under the grievance machinery, is to be referred to an arbitrator appointed by the National War Labor Board.

Generally, arbitration may be invoked in settlement of any question arising under the terms of the agreement. For example, the Minneapolis-Moline (Minneapolis) agreement states that all questions arising under the terms of this agreement or its application are subject to arbitration.

Strikes and Lockouts

All but four agreements, which make no reference to strikes, place some restrictions on work stoppages. Almost half prohibit work stoppages altogether, while the agreements are in effect, and an additional 13 prohibit stoppages pending operation of all stages of the grievance machinery. Arbitration is provided in 14 of the 16 agreements which prohibit stoppages for the duration of the agreement, while only 2 of the 13 agreements which forbid stoppages pending resort to the grievance machinery include provisions for arbitration. One other agreement, which provides for automatic arbitration of unsettled disputes, nevertheless permits strikes on 60 days' written notice to the company.

Two of the Oliver Farm Equipment Co. agreements (Battle Creek and South Bend), which do not include any arbitration clauses, provide that no strikes are to be called until a strike vote has been taken by secret ballot under control of an election board consisting of one representative each from the union and the company, and one chosen by a designated public agency. All workers covered by the agreement, including those not at work but possessing seniority rights, are entitled to vote, and a strike may be called only after a majority-vote approval.

Health and Industrial Accidents

Shipyard Health Problems

AN enormous expansion in the country's shipbuilding facilities has taken place since the United States entered the war, and this in turn has greatly increased the task of maintaining healthful working conditions. An account of the health problems connected with the shipbuilding program was given at the annual meeting of the Industrial Hygiene Foundation, at Pittsburgh, Pa., by Philip Drinker of the Harvard School of Public Health, who is health and hygiene consultant of the Division of Shipyard Labor Relations, United States Maritime Commission. A summary of the speech follows.

More than 400 shipyards situated on all three sea coasts, the Great Lakes, and on navigable rivers, are now building everything from lifeboats to battleships. Excluding Government-operated navy yards, more than 1½ million workers are employed, of whom about 10 percent are women.

In order to man these new yards great numbers of workers have been brought to coastal cities—a movement which has involved the provision of housing and even the building of large cities. One such development is Vanport, Oreg., which has been built since the attack on Pearl Harbor, and is now the second largest city in the State. Another is at Richmond, Calif., and there are smaller ones along the Gulf Coast. Such population shifts cannot be made without risks to health, and in these cases there was no authority to force the workers to live in the houses provided if they preferred to live in a tent colony.

Medical Care

The Maritime Commission has endeavored to insure that there would be two full-time doctors for every 5,000 shipyard employees and another doctor for each additional 5,000, but the general shortage of physicians has been felt in shipyards as in other industries. In two new shipbuilding communities—Vancouver, Wash., and Richmond, Calif.—in which the existing medical facilities were entirely inadequate the Kaiser Corporation instituted a medical scheme whereby, for a small weekly payment, the worker receives full hospital and medical care. In Vancouver the workers' families also participate in the plan. In the Portland shipyards approximately 28 percent of the employees are women—a much higher proportion than in other shipyards. As it is proposed to increase this ratio it has been necessary to build nurseries to which mothers working in the yards can bring their small children, and this means the addition of pediatricians to the medical staff.

It is expected that increasing numbers of soldiers and sailors who have been discharged for various disabilities will be employed. No rigorous physical requirements are imposed, but the attempt is made to place disabled workers in jobs for which they are fitted and where they will not be a hazard to themselves or their fellow-workers. The present labor agreement on the West Coast specifically prohibits physical examinations; but it is said that, with an increasing understanding by the employees that physical examinations are wanted for placement and not for hiring and firing, opposition to examinations is disappearing.

Industrial Accidents

Accidents occurring in shipyards are now reported according to a common schedule so that it is possible to compare them for all the shipyards of the country.[1] This comparison has stimulated competition which has been of material help in improving the accident record. The industry is not considered a bad risk from a workmen's compensation standpoint. In one of the largest West Coast shipyards the insurance rate dropped from $5 per $100 of pay roll in the first year of operation to $1.86 in the second year and then to 93 cents, as compared with a rate of $10 in logging operations in the same State and $17 in bridge building.

Eye accidents from foreign bodies are still far too numerous and the usual opposition to the use of goggles has been encountered among the new men. An educational film, "Eyes for Victory," made with the cooperation of the National Safety Council, has been used with considerable success. In welding, flash burns to the eyes are caused by the ultraviolet rays in which the welding arc is fairly rich. The effect of injurious radiations on the eye varies directly with the duration of exposure and inversely with the square of the distance—that is, a 4-minute exposure is twice as serious as one of 2 minutes, but an exposure at a distance of 3 feet is 4 times as severe as one at 6 feet. Also, the effects of short exposures over a single day are cumulative. A recent experiment with a typical welding set showed that the severity of the dosage from any welding arc at any distance can be measured, and it is now a simple matter to determine what protection is needed in order to prevent flash burns under any particular circumstances. From the practical standpoint, it is said, safety goggles of clear glass, intended to protect against impact and equipped with sideguards, give all the protection needed against flash burns and they have the added advantage that they can be worn on the night shifts when tinted goggles make walking around shipyards far too difficult.

Occupational Diseases

Modern ship construction demands a great amount of welding since riveting and bolting, although by no means eliminated, have been greatly reduced. Much of the welding is done in confined places and the fumes may give rise to metal-fume fever if they are not

[1] For statistics on injuries in shipyards, see Monthly Labor Review, July 1943 (p. 5), October 1943 (p. 766), and December 1943 (p. 1151).

carried off. However, all yards have taken measures to protect the men welding galvanized plates, by providing local exhausts, air masks, or both.

All metal surfaces of Maritime vessels are usually primed with red lead, while the Navy requires priming with zinc chromate. In some yards the outside painting is done with spray gun, and in others all painting, both inside and out, is done by brush. In general, spray painters are adequately protected with appropriate masks but, as all vessels are likely to be crowded during construction, it is very difficult to protect other workers from breathing paint mist.

Welding should be done only on unpainted surfaces and, if steel plates are painted before being welded into place, a six-inch margin is supposed to be left unpainted. Any paint, either lead or zinc, which is left is boiled off by the heat of the electric arc or the acetylene torch. Welders have been provided with respirators approved for use against lead fume, and although in the rush to get ships built they are not always used, the incidence of lead poisoning in the shipyards has been very low. A few cases of chrome sores were reported in one Government shipyard spraying zinc chromate, but the trouble was eliminated when the men were provided with proper respiratory protection.

A recent study of cases of pneumonia among shipyard workers shows that pneumonia is no more likely to occur among welders than among other workers in the shipyards. New workers who have come to a shipyard from other parts of the country become acclimatized and, after a few months' residence in the new community, are neither more nor less susceptible to pneumonia than are the natives of the community.

Industrial Injuries, September 1943

THE 11,456 manufacturing plants, which supplied the Bureau of Labor Statistics with industrial-injury information for the month of September 1943, reported a total of 29,262 disabling injuries experienced by their employees in the course of their work during the month. These plants employed 7,413,000 workers, or nearly 46 percent of the estimated number of all workers in the manufacturing industry. On the assumption that the reporting establishments constitute a representative sample, the total number of disabling injuries in all manufacturing plants of the United States during September, therefore, may be estimated as about 64,000.

Final figures as to the actual amount of time lost because of these injuries will not be available for some time. It is conservative, however, to assume an average of at least 20 days' lost time for every disabling injury. The estimated volume of injuries in September, therefore, represents the probable direct loss of 1,280,000 man-days of production, without any allowance for the continuing economic loss resulting from the many deaths included in the totals or from the reduced productivity of those workers who suffered permanent physical impairments. This direct loss alone is equivalent to a month of full-time employment for 49,000 workers.

By the end of September, 0.3 percent of the injuries reported in that month were known to have been fatal and 3.5 percent had developed into permanent physical impairments. It is reasonably certain that these proportions will be increased when the subsequent developments become known in respect to the injuries which were presumed to be only temporary at the end of September.

On the basis of the 9-month figures available, it seems that the injury trend in manufacturing during 1943 was upward. Of the 74 industries for which comparison is possible, 44 had cumulative injury-frequency rates for the first three quarters of 1943 which were at least a full frequency-rate point higher than their averages for 1942. Fifteen of these advances represented very significant increases amounting to at least 5 frequency-rate points. In direct contrast to the more common upward movement in frequency rates, however, the 9-month summaries for 18 industries showed a decline in injury frequency of at least one full point as compared with 1942, while the 9-month averages for 12 industries showed a change of less than a full frequency-rate point, upward or downward, from their respective 1942 averages.

The prevailing upward trend in injuries in manufacturing during 1943 is even more strikingly indicated by the preliminary month-by-month estimates of the total volume of injuries. In the entire year of 1942 it was estimated that 635,200 manufacturing workers experienced disabling injuries in the course of their employment. In comparison the monthly estimates for the first three quarters of 1943 total 591,000, or 93 percent of the estimate for the entire year of 1942.

In comparison with 1942 the outstanding changes in injury frequency, as indicated by the 9-month data, were the increases of 5 or more points in the rates for the following industries: Aircraft parts; ammunition, 20 mm. and over; boots and shoes, not rubber; corrugated boxes; drugs, toiletries and insecticides; explosives; food-products machinery; furniture, except metal; general industrial machinery; guns and related equipment; paper; planing mills; pottery; stamped and pressed metal products; and tank parts. The industries having corresponding decreases of 5 or more points in their rates were: Canning and preserving; fabricated structural steel; fiber boxes; foundries; leather; motor-vehicle parts; and slaughtering and meat packing.

Industrial Injury-Frequency [1] Rates for Selected Manufacturing Industries, September 1943, With Cumulative Rates for 1943

Industry [2]	September 1943		1943 cumulative frequency rate (January–September)	1942 annual frequency rate
	Number of establishments	Frequency rate [3]		
Agricultural machinery and tractors	42	22.4	19.2	18.3
Aircraft	52	9.9	10.2	11.4
Aircraft parts	196	11.2	16.0	9.5
Ammunition, 20 mm. and over	375	23.1	26.8	17.2
Ammunition, small-arms	25	12.4	17.8	(4)
Baking	10	14.9	18.8	16.2
Book and job printing	16	13.9	14.1	10.5
Boots and shoes, not rubber	268	13.3	14.0	9.0
Canning and preserving	48	16.9	19.6	33.0
Carpets and rugs	7	9.5	13.5	14.1
Cement	89	8.9	8.7	7.3
Chemicals, industrial	304	17.7	18.8	16.8
Clothing, men's	456	6.7	8.6	7.7

See footnotes at end of table.

Industrial Injury-Frequency [1] Rates for Selected Manufacturing Industries, September 1943, With Cumulative Rates for 1943—Continued

Industry [2]	September 1943		1943 cumulative frequency rate (January–September)	1942 annual frequency rate
	Number of establishments	Frequency rate [3]		
Clothing, women's	346	5.1	5.5	4.6
Coke ovens	22	14.2	17.3	22.8
Concrete, gypsum, and plaster products	117	39.3	49.6	46.4
Confectionery	8	18.6	17.6	13.2
Construction and mining machinery	126	30.8	33.0	26.4
Corrugated boxes	85	32.7	40.3	36.7
Cotton goods	29	21.9	15.9	16.3
Cutlery and edge tools	31	30.3	24.7	26.3
Drugs, toiletries, and insecticides	67	21.7	21.9	14.6
Dyeing and finishing	12	12.9	22.6	26.5
Electrical equipment and supplies	677	11.1	11.5	7.3
Engines and turbines	73	21.4	[5] 20.9	(4)
Explosives	35	7.2	11.7	6.4
Fabricated structural steel	147	30.6	35.2	46.7
Fiber boxes	26	23.0	29.6	33.3
Flour, feed, and grain-mill products	4	15.9	(4)	24.9
Folding boxes	93	27.4	23.7	20.8
Food-products machinery	25	35.5	34.5	18.3
Forgings, iron and steel	158	40.7	41.7	30.6
Foundries, iron and steel	618	44.0	45.0	46.7
Furniture, except metal	36	28.3	30.1	21.7
General industrial machinery	687	24.1	24.9	19.7
Glass	30	20.7	19.1	20.5
Guns and related equipment	169	18.5	17.8	12.7
Hardware	34	21.8	23.9	24.3
Iron and steel	216	9.3	10.0	10.4
Knit goods	22	13.2	10.9	7.7
Leather	15	17.3	25.2	30.2
Machine shops, general	139	28.3	[6] 30.2	(4)
Metalworking machinery	761	17.8	19.8	21.6
Motor vehicles	137	10.5	13.6	11.3
Motor-vehicle parts	71	27.4	26.0	31.9
Nonferrous-metal products	371	22.8	24.6	23.6
Paints and varnishes	39	19.8	20.5	17.4
Paper	206	30.6	32.6	26.3
Paper and pulp (integrated)	74	20.1	26.7	25.4
Petroleum refining	167	10.7	12.5	10.7
Planing mills	34	49.0	57.1	57.6
Plate fabrication and boiler-shop products	78	48.9	[7] 47.7	(4)
Plumbers' supplies	22	20.6	19.2	23.1
Pottery	9	39.1	23.8	13.1
Pulp	21	42.3	32.6	20.1
Radios and phonographs	210	7.8	7.8	4.8
Railroad equipment	41	19.3	21.3	17.4
Rayon and allied products (chemical)	19	7.1	8.0	8.4
Rubber boots and shoes	10	7.5	12.3	6.6
Rubber tires	40	12.7	13.7	11.4
Sawmills	30	60.9	64.7	66.7
Set-up boxes	234	18.1	17.2	13.3
Sheet-metal work	33	53.6	[5] 38.7	(4)
Shipbuilding	217	28.3	30.0	33.1
Sighting and fire-control equipment	43	7.4	6.8	7.3
Slaughtering and meat packing	205	34.4	36.3	44.5
Small arms	57	11.7	11.0	6.1
Smelting and refining (nonferrous)	195	26.9	29.9	28.4
Soap and glycerin	17	7.0	8.9	10.1
Special industry machinery	89	18.6	23.2	25.2
Stamped and pressed metal products	275	27.6	32.4	30.6
Steam fittings and apparatus	58	31.1	35.1	30.7
Stoves and furnaces, not electric	59	30.1	35.9	35.7
Tanks, military	23	11.4	12.9	6.5
Tank parts, military	66	16.5	20.6	7.7
Textile machinery	10	20.8	16.0	16.3
Tin cans and other tinware	40	18.9	19.0	20.1
Tools, except edge tools	53	24.7	25.5	34.3
Wire and wire products	148	22.9	22.9	24.6
Woolen goods	47	22.0	19.9	17.9

[1] The frequency rate represents the average number of disabling industrial injuries for each million employee-hours worked.

[2] A few industries have been omitted from this table because the coverage for the month did not amount to 1,000,000 or more employee-hours worked.

[3] Computed from all reports received for the month. Not based on identical plants in successive months.

[4] Not available.

[5] Cumulative from June 1.

[6] Cumulative from May 1.

[7] Cumulative from April 1.

Accidents and Health in British Factories, 1942

THE growing importance of the work of women in factories was noted as the outstanding feature of the year in Great Britain, in the annual report of the Chief Inspector of Factories for the year 1942.[1] Although during the previous years of the war there had been a steady increase in the number of women employed and in the various jobs in which they take the place of men, women workers not only increased in number during the year but also had a much more widely recognized position in the industrial structure of the country.

Industrial Accidents

There was a considerable increase in the total number of reportable accidents in 1942, although the percentage increase was not so high as in the two previous years. Nonfatal accidents numbered 314,630 as compared with 271,278 in 1941 (an increase of 16 percent), and fatal accidents 1,363 as compared with 1,646 (a 17-percent decrease). The decrease in fatalities is even more marked if the 48 fatalities that occurred in a fire catastrophe are deducted. The decrease in fatal accidents is considered to be an index of the care being exercised in the prevention of serious accidents, while the increase in the total number of accidents may be due to the large number of minor accidents reported. Compared with the pre-war figures for 1938, accidents to adult males had increased from 134,752 to 203,865, or 51 percent; to adult females, from 14,626 to 71,244, or 389 percent; to male young persons, from 22,922 to 29,028, or 27 percent; and to female young persons, from 7,803 to 10,493, or 34 percent. It was agreed by all inspectors that, apart from the increase in the numbers employed, the increase in the number of accidents to women was due mainly to the fact that women have so largely taken over accident-producing occupations formerly reserved for male workers of some skill. This is shown by the figures for accidents to women in industries concerned with the making of munitions, in which accidents numbered 46,552 in 1942, as compared with 22,542 in 1941 and 2,986 in 1938. Some 85 percent of the 1942 excess in accidents over 1941 occurred in this accident-producing group. In spite of the great increase in accidents among women, the opinion was expressed that they are safe workers when employed in jobs within their physical capacities but that they are somewhat more liable to accidents from the catching of hair and clothing in moving machinery.

The principal reasons for the increase in the general accident rate, in the opinion of the factory inspectors, were as follows:

Increased employment of women and girls working under war pressure on dangerous machines without the training it is possible to give in peacetime; speed-up in production combined with increased weariness as a result of continuous employment at maximum hours through 4 years of war; increased demands on overworked supervisory staff; neglect of safeguards by workers to speed up production; employment of older men whose reactions in dangerous situations are slower; and loss of maintenance staff, which has had an adverse effect on plant working conditions.

[1] Great Britain. Ministry of Labor and National Service. Annual Report of the Chief Inspector of Factories for the Year 1942. London, 1943. (Cmd. 6471.)

Physical Conditions in Factories

In general, the heating, ventilation, and lighting arrangements in factories had been improved during the year. The exemption of factories from the fuel order and the increased attention, especially in the larger factories, to utilization of waste heat and to sources of heat losses has resulted in an improvement of the heating arrangements. Although equipment for the improvement of heating became more difficult to obtain because of the system of controls, progress was made. The control of excessive temperatures was often a more difficult problem, but in spite of war restrictions some air conditioning had been introduced. The question of general ventilation had become a special problem because of black-out requirements, the presence of blast walls, and protection for special machines, etc., which interfered with ordinary means of ventilation through windows, walls, and roofs. There was wider recognition of the desirability of admitting further daylight into factories by the substitution of movable for permanent black-out arrangements, and further extensive improvement occurred in industrial lighting especially among the smaller factories.

Industrial Health

Medical and nursing services in industry were extended during the year. "War requirements necessitated the provision of these health measures over a much wider area and power was obtained to require this by means of the Factories (Medical and Welfare Services) Order, 1940—which empowered the Chief Inspector to direct the provision of medical, nursing, and welfare services in essential works. The expansion in this connection was considerable, but is now limited by the shortage of doctors and nurses." At the end of 1942 there were approximately 850 works medical officers in industry, of whom almost 19 percent were full-time workers and about 7 percent were women. About 6,000 hospital trained nurses are now employed.

During the year, 14 cases (3 fatal) of toxic anemia were reported, 7 of which were attributed to TNT, 6 were caused by benzene in solvents used in rubber solutions, and 1 by airplane dope. A slight rise occurred in the number of cases of lead poisoning, as compared with 1941 which had the lowest figure on record. Only 1 case of mercurial poisoning was reported and 6 cases of arsenical poisoning. Cases of aniline poisoning numbered 204, as compared with 249 in 1941; of these, 167 were caused by TNT. Toxic jaundice caused by TNT has been reduced much below the figures for the last war. The disease was not reportable until January 1, 1916, but in the next 36 months 403 cases occurred, of which 105 were fatal. In this war, during the 40 months which had elapsed up to the end of 1942, there were 85 cases of which 20 were fatal. Anthrax was reported in 25 cases, with only 1 fatality. The number of cases of epitheliomatous ulceration was below the number for 1941—113 (8 fatal) as compared with 128 (11 fatal) in 1941. Chrome ulceration decreased from 103 cases to 89. Cases of gassing fell from 782 in 1941 to 776 in 1942, with only 25 fatalities as compared with 41 in 1941.

Hours of Work

The control of hours of employment of women and young persons was the subject of further orders during the year. A new general order was issued for the flour-milling industry in view of the need for shift work by women and young persons over 16 who were taking the places of men. Also, the Hours of Day Work in Factories Order was issued early in the year to permit (to the extent allowed by the Factory Inspector) weekly employment in excess of 48 hours and up to 55 hours in industries not covered by the General Emergency Order for Engineering. Under the Engineering order, permissions were in effect in 13,266 factories as compared with 9,129 at the beginning of the year. Under the Flour Milling Order permissions were in force in 74 factories, and under the Hours of Day Work Order in 5,862. The number of individual orders issued had declined, largely as a result of the issue of the Hours of Day Work Order, although it appeared evident that employers were finding it easier to fit their requirements in regard to hours within the framework of one or other of the general orders.

In general the tendency during the year was toward the reduction of hours of work not only of women and young persons but also of adult males whose hours are not controlled by the Factories Act.

The effect of reduction of working hours on production and absenteeism was shown by the records of several factories. One large metal works had very little difference in output when hours were reduced from 56 to 53½ per week, in spite of the fact that the machines were mechanically fed and the human factor was not so important. A small factory reduced the hours to 47 for males over 16 and to 44 for those under 16, but had as high output as when the hours were 54 and 48, respectively.

A large increase occurred in the number of part-time workers during the year, the greater part of these workers being women with household responsibilities and men and women who were normally retired but had returned to work for the period of the war. Also, persons who ordinarily worked comparatively short hours, such as school teachers and students, were devoting some of their spare time to factory work. There was, in general, more part-time work in the south of England than in the north. In one London district 80 percent of the factories were reported to be employing part-time workers. Opinions varied as to the quality of the part-time workers but in some cases hourly output was said to be higher and lost time less among the part-time than among the full-time workers. The most popular arrangement of hours was that of morning and afternoon shifts, usually of 4 or 5 hours.

Factory Canteens

The number of canteens in factories had increased from 5,695 in 1941 to 8,481 in 1942; those at docks from 110 to 160; and those on building sites from 787 to 868. In addition, at the end of 1942, 411 places were known to have canteens in preparation. There was general acceptance of the idea that the canteen is an integral part of the factory; and workers even in smaller factories where the employer was not subject to compulsion expected a canteen to be provided as a

right. Extension of canteen services was somewhat hampered toward the latter part of the year by the acute shortages of building material and labor but much had been achieved by ingenuity in converting existing premises. The value of the canteens was shown by the remarkable increase in the number of canteens voluntarily provided in factories employing fewer than 250 persons. At the end of 1942, the canteens in these small factories numbered 4,141 as compared with 2,530 in 1941. The need for the provision of meals for night workers has been stressed by the Inspectorate and the Factory Canteen Advisers, and employers were increasingly realizing the importance of the right feeding of adolescents. Initial difficulties in providing canteens have, in general, been overcome and there has been "a noticeable awakening of public interest in the problem of the right use of available foodstuffs, and this is reflected in the appreciation which workers, as well as managements, are showing of the value of good cooking and sensible menu planning in relation to health and efficiency."

Safety and Health Requirements for Mining in Peru, 1943[1]

SAFETY and health regulations for the protection of workers engaged in mining operations in Peru have been promulgated by the Peruvian Government.[2] Rules were also formulated, to be followed in the technical inspections carried on by the Department of Mining Safety, established under the Bureau of Mines and Petroleum.

Mining companies which have plants for preparation of lead ores for smelting must meet the following requirements for protection of the health of the personnel employed in these establishments: Eating places provided for workers must be situated at some distance from the plants and must be kept in sanitary condition. Protective masks must be furnished for workers in places where poisonous materials saturate the air, and ventilation must be provided to insure that lead dust shall not exceed 0.15 milligram of dust per cubic meter of air. Floors are to be sprinkled before sweeping. Clean clothing is to be worn by personnel during working hours and showers are to be installed for their use. Medical examination must be given the personnel at least once a month.

These requirements became effective from the date of the resolutions, and after 90 days the mining companies were to report to the Bureau of Mines and Petroleum (*Dirección de Minas y Petróleo*) what steps had been taken to comply with the above requirements. To the Department of Mining Safety is delegated the administration of the regulations of 1943 as well as of those of 1940.

Rules to guide the Department of Mining Safety in the exercise of its functions state that—

(1) The Department is to take charge of accident statistics in the mining industry. After making the necessary studies the Department is to suggest adequate measures to prevent accidents and to better the working conditions of all wage earners in the industry.

(2) Inspectors are to investigate hygienic conditions of camps and other workers' living places and suggest means of improvement.

[1] Data are from report of Julian Greenup, counselor for economic affairs, United States Embassy at Lima.
[2] Supreme Resolutions Nos. 358 and 359 of August 31, 1943.

(3) The chief engineer and engineer inspectors are to inspect the mining enterprises of the country at least once a year.

(4) The chief engineer is to make a monthly report to the Bureau of Mines and Petroleum on the measures taken, on observations of neglect on the part of the mining companies, and on suggestions for the better conservation of the health and life of employees.

(5) Regional officers no longer are to have the right to intervene in matters pertaining to the safety and working of mining exploitations. They are to act only through specific and justified orders from a higher department.

Cooperation

Goods and Services Provided by Consumers' Cooperatives in the United States

Summary

DATA compiled by the United States Bureau of Labor Statistics for use in a directory of cooperatives [1] indicate that in various parts of this country cooperatives are supplying themselves with one or more of nearly all kinds of goods and services. Thus, through cooperative channels they obtain groceries, bakery goods, dairy products, meats, shoes, dry goods, clothing, furniture, drugs, cosmetics, hardware, coal and wood, fuel oil, all kinds of farm and household supplies, radios, refrigerators, electricity and electrical appliances, books, students' and occupational supplies, paint, lumber and building materials, automobiles, trucks, gasoline, motor oil, tires, and other automobile accessories. They can, in some sections, buy milk pasteurized in their own creamery, ice cream and butter made in their own plant, bread and pastries from their own bakery, coffee roasted in their own roasting plant, and sausage and smoked meats from their own factory.

Automobile storage, servicing, and repairs are available in an increasing number of associations, as well as personal services (barbering, beauty service, shoe repair, laundering and dry cleaning, and custom tailoring). Housing associations provide apartments and individual dwellings, and meals and rooms are available in other associations. Cold-storage lockers for meats and vegetables for family use are being provided in rural areas. Where new subdivisions are opened up in areas not connected to a municipal water system, cooperative associations have been providing this essential service.

Medical service is an activity the possibilities of which are being explored with great interest. This may be supplied on contract with private physicians or through the cooperative's own facilities and with physicians on the pay roll of the association. Hospitalization may be obtained on a prepayment basis on contract with nonprofit associations. There are also four cooperative associations now running hospitals of their own; in another locality, organization is under way.

Burial service is also obtainable in several States, mainly in the Midwest.

Data for all of the above types of associations—about 4,500 organizations—are shown in the directory. It does not cover certain other types, such as insurance associations, credit unions, telephone associations, or electricity-supply associations.

[1] U. S. Bureau of Labor Statistics Bulletin No. 750: Directory of Consumers' Cooperatives in the United States, as of January 1, 1943. Washington, 1943. (Obtainable from Division of Public Documents, Washington, D. C., at 15 cents a copy.)

Distributive Businesses

As is indicated in the statement below, over half of the associations reporting handle gasoline. An even larger proportion (60.9 percent) handle motor oil; some of the store and farm-supply associations which do not dispense gasoline nevertheless carry motor oil. Only about two-thirds of the petroleum associations also handle tires, tubes, batteries and accessories. Over half of the associations carry flour, feed, and seeds, and 46.6 percent other farm supplies; only slightly over a fourth handle fertilizer.

	Percent of reporting associations		*Percent of reporting associations*
Groceries (including vegetables, fruits, dairy and bakery products)	27.6	Other fuels (kerosene, fuel oil, etc.)	38.8
Meats	18.0	Motor oil	60.9
Clothing	9.2	Grease	56.7
Shoes	7.7	Tires, tubes—batteries, accessories	36.9
Dry goods	8.6	Paint	30.0
Furniture	2.7	Lumber, building material	13.6
Coal and/or wood	28.3	Flour, feed, seeds	51.1
Electrical appliances	19.0	Fertilizer	27.0
Hardware	25.1	Other farm supplies (fly spray, insecticides, twine, steel)	46.6
Other household supplies	13.2	Automobiles, trucks	.9
Books	2.5	Miscellaneous, not otherwise classified	18.7
Students' and/or office supplies	4.7	Funeral goods, caskets	.7
Drugs	4.4		
Cosmetics	6.5		
Gasoline	54.9		

As used in the survey "groceries" included canned goods, dry groceries, dairy products (cheese, butter, milk) and bakery goods. A surprisingly small proportion (not quite 28.0 percent) reported groceries as being carried in stock; practically all of the buying clubs, however (4.3 percent) buy groceries. Less than a fifth had meat markets. These proportions considerably understate the actual situation, as the result of poor reporting by store associations; many nonreporting associations are known to be handling groceries.

Over a fourth of the reporting associations were selling coal or wood and nearly two-fifths were handling "other fuels" (kerosene or fuel oil). Electrical appliances were carried by nearly a fifth of the associations and hardware by a fourth.

The data indicate possibilities of expansion into numerous lines now carried by only a small proportion of the associations—clothing, shoes, dry goods, household supplies, etc.

Among the more unusual commodities handled—each by a small number of associations—were religious films, cosmetics, luggage, automobiles and trucks, and funeral supplies.

Altogether, 16.6 percent of the reporting associations noted that they carried other commodities than those on the check list; most of these failed to specify what these goods were. For those specifying, "miscellaneous" included such items as farm machinery and implements, candy, tobacco, and soft drinks (each reported by a considerable number of associations), notions, mimeograph supplies, butane and bottled gas, phonograph records, gift novelties, magazines, sports goods, toilet articles, harness, dynamite, liquors, wines and beer, radios, ice, windmills, and plumbing supplies.

About 100 associations reported buying arrangements with local dealers, for goods or services not provided by the cooperative, whereby the purchasing member received a discount.

Services Provided

Altogether, 26.6 percent of the associations reporting were providing services of various kinds, either as part of a general-purpose business or through a special service association. Largely because of the numerous housing associations in New York, that State led as regards proportion of associations furnishing services. Wisconsin was next in order, followed by Minnesota.

The proportion of the reporting associations providing each type of service is indicated in the accompanying statement. Among the most common services are automobile repair, provision of rooms or meals, and provision of facilities for recreation.

	Percent of reporting associations		*Percent of reporting associations*
Automobile storage	1.4	Burial service	1.4
Automobile service (repairing flat tires, greasing, battery recharging, etc.)	1.4	Medical care: Own facilities	.5
		On contract	.7
Automobile repair	4.6	Meals	4.8
Parking lot	.8	Rooms	3.1
Laundry and/or dry cleaning	.8	Houses or apartments	1.5
Water for household use	1.2	Social or recreational facilities	4.5
Cold storage of meats and vegetables for family use	2.9	Educational facilities	2.5
		Trucking	.5
Barber service	.3	Insurance	3.7
Beauty service	.2	Printing and publishing	.8
Shoe repair	.3	Other	2.1
Tailoring	.2		

Among the services grouped under "other" were lawn mowing, operation of bus for transportation of members, oil-burner repair service, mimeographing, emergency ambulance service, rental of heavy farm equipment, blacksmith service, spray painting, generation and distribution of electricity (by housing associations, to tenant members), welding service, trucking of goods, machinery and tractor repair, auditing, provision of credit, and electrical contracting. One association has as its function the supplying of steam to the homes of its 50 members.

Recreational facilities.—Among the most interesting and varied are the recreational facilities provided.

In the attempt to make the cooperative activities an integral part of the daily life of the members, cooperators have been learning to play together. As this implies, emphasis is laid on member participation, rather than entertainment of the passive type in which the members watch or listen to others. Increasingly the membership meetings include some recreation—group singing or dancing, games, a play or skit presented by members, refreshments, or other entertainment.

So strongly are cooperatives convinced of the value of group recreation that for the past several years recreation institutes have been held for the purpose of training leaders in group activities. One association has as its sole activity the production of recreational materials (publication of song sheets), games, etc, and the fostering of recreational activities. During the past few years also a number of local "play co-ops" have been formed, with the single purpose of recreation. The objects of these associations are to create a social

program, provide recreational opportunities for young people and so draw them into the cooperative movement, and to train recreation leaders. With these in view they promote meetings for folk dances, amateur theatricals, craftwork, etc. One also has a ticket-purchasing agency, through which members can buy admissions to plays, concerts, etc.

For much of the social activity no special facilities are needed except a place where the cooperators can assemble, and many of the associations reporting recreational facilities gave no details regarding them.

There are, however, a considerable number of organizations formed for the purpose of ownership of recreational facilities of various kinds. Among the more unusual of these are 19 associations each owning an airplane which the members use in common, 1 association owning a launch, another a hunting lodge, and a third operating a golf club and links. Three associations own hall buildings in which cooperative meetings of various kinds are held. Three others are clubhouse associations. One of these has a 3-story building containing clubrooms, swimming pool, gymnasium, dance hall, and stage for theatricals; another owns a small house with library and clubrooms, and the third serves as a community center for the residents of the housing development in which it is situated.

There are five associations whose function is the ownership and operation of "cooperative parks." These facilities generally consist of wooded areas on the shores of lakes or rivers, providing natural recreational facilities for camping, fishing, swimming, skating, skiing, etc. All but one of these are of the federated type, the members being local cooperative associations rather than individual persons. All but one (in New York) are in the Central States area. Four are situated on lakes; the fifth lies on the bank of the famous Brule River. One of these owns 283 acres, another 160 acres, and another 80 acres of land. All provide sites for family camping and all have some community buildings—one a large farmhouse and one a specially built community center open in the winter as well as summer, and a third has a refreshment pavilion and the steam baths (sauna) so prized by Finnish people. This last association, alone of the five, allows members to purchase lots for camping (in the others all property is owned by the association). This association (which is in operation summer and winter) has the most extensive physical plant of the group, consisting of large auditorium and dance hall (with dining room), a band pavilion, dormitories, picnic and camping areas, steam baths, swimming pier, and a historical museum. The eastern association runs a summer camp on a site of 125 acres containing dormitory and cottages.

One cooperative association consists of a group of persons interested in dramatic activities. For several years this group has produced plays which it took on tour among the cooperatives in the region.

Some of the distributive associations, whose main business is to supply the material needs of their members, have also provided some recreational facilities. As early as 1939 Central States Cooperatives (Chicago) reported that five of its member associations had provided social rooms in connection with their stores; one of these has a regular clubroom and library. Of two Italian store cooperatives (neither affiliated with the regular consumers' cooperative movement) for which the Bureau of Labor Statistics has data, one has a dance hall, and the other a dance hall, clubroom, tavern, and bowling alleys.

A few of the cooperative housing associations also have recreation rooms, assembly halls, and one association operates a tea room where residents assemble in the afternoon for a social hour.

One general-purpose association with various distributive and service activities runs a motion-picture theater.

Two associations handling clothing each run a custom-tailoring shop in connection with the store. One association runs a huckster truck and another has a meat truck with a butcher.

Most of the associations handling books sell them, but at least two associations have a circulating library.

Production by Local Associations

In this country by far the greatest part of such goods as are manufactured cooperatively is produced in plants owned and operated by the wholesale associations either individually or jointly with other wholesales.

Only 137 local associations reported manufacturing or processing any of the goods sold by them.[2] Of these, 96 were grinding feed, 1 was making fertilizer, 1 was cutting wood for fuel, 3 were operating sawmills, 1 was blending motor oil, and 5 were making meat products (such as sausage). Of 12 associations operating bakeries, 6 had this as their sole activity; the others were running the bakeries as adjuncts to a grocery business. Only 2 associations were doing a strictly creamery business; both were operating their own plants and one of these also manufactured butter and ice cream. There were 16 others which had dairies that were operated as part of a general distributive business. One association had a limestone quarry.

Status of Labor Banks, June 30, 1943

AS OF June 30, 1943, there remained of the labor-banking movement that flourished in the twenties only three banks—one less than in 1942. The three remaining organizations all showed substantial increases from 1942 to 1943 in deposits, total resources, and capital, surplus, and undivided profits. For the three banks in operation in both years the increases in these items amounted to 43.1, 39.7, and 5.8 percent, respectively. Data, supplied to the Bureau of Labor Statistics by the Industrial Relations Section of Princeton University, are given for each of the three banks in the accompanying table.

Status of Labor Banks, as of June 30, 1943

Name and location of bank	Capital, surplus, and undivided profits	Deposits	Total assets
Amalgamated Trust & Savings Bank, Chicago, Ill.	$1,082,475	$15,598,769	$16,748,139
Union National Bank, Newark, N. J.	543,682	6,332,768	6,890,250
Amalgamated Bank of New York, N. Y.	763,011	13,427,031	14,306,632
Identical banks: 1943	2,389,168	35,358,568	37,945,101
1942	2,258,705	24,708,171	27,182,878

[2] There is, however, reason to believe that this understates the situation and that some associations which actually are producing some goods failed to report it.

Education and Training

Scientific Training for Women for War Jobs

THE great majority of the men with scientific training have been drawn into the armed forces or into civilian work closely connected with military and naval activities. As a consequence scientifically trained women, of whom the supply is very limited, are in great demand.[1]

As consultation of the National Roster of Scientific and Specialized Personnel revealed that the women listed constituted less than 10 percent of the number of men, the necessity for scientific training of women was obvious. As early as 1940 the United States Office of Education began to offer short, tuition-free courses at college level to both men and women. At first limited to the engineering field, the courses have since been expanded to include other sciences as well as management training.

By the spring of 1943 more than 200 colleges, equipped to provide instruction along these lines, were offering courses in 1,000 localities.

The tax-exempt, degree-granting colleges and universities that are eligible to participate in ESMWT[2] organize the training courses to meet national and local war needs. Many of those taking the courses are already employed, and are seeking training that will enable them to fill more responsible positions. Many others, now unemployed, will be available upon completion of their training.

Nearly all classes are open to women, and some are organized especially for them. When the first Engineering Defense Training courses were given, few women enrolled. From December 1940 to June 1941, there were only 811 women in a total enrollment of 120,800. During the next year, when training included chemistry, physics, and management, as well as engineering, women numbered 38,300 out of a total enrollment of 438,500. The proportion has steadily increased, and now amounts to 22 percent. In fact, the February [1943] figures show that out of 136,000 attending classes, 30,000 are women.

The greatest barrier to a more rapid registration of women is the failure of qualified women to apply for training, one reason undoubtedly being their reluctance to follow technical lines, especially mathematics. Another explanation is that high wages and immediate employment can be obtained in unskilled or low-skilled jobs. Inducements, such as training allowances, may have to be offered to women who sacrifice earning opportunities in order to enter training.

According to the United States Civil Service Commission, "the most critical shortage in the scientific field is in physics. There is also an intense demand for metallurgists, engineering draftsmen, meteorologists, chemists, mathematicians, geologists, geographers, and technologists."

[1] Data are from an address by George W. Bailey, Secretary, Committee on Scientific Personnel, U. S. Office of Scientific Research and Development (in Proceedings of the Conference on War and Post-War Demands for Trained Personnel, Washington, D. C., April 9 and 10, 1943, New London, Conn., Institute of Women's Professional Relations, 1943).

[2] Engineering Science Management War Training.

In fields in which demands for trained women are most urgent, college graduates who have majored in science may be placed as junior scientists, and those without college education may qualify to serve as scientific aides with the opportunity for training on the job and later advancement. While they are employed, free ESMWT courses will pave the way to promotion. "With as little as 6 semester hours of college study in mathematics, physics, or engineering, and 1 year of college, a woman may be qualified to do subprofessional work as a technical assistant in engineering. The same qualifications may be attained through ESMWT courses."

It is possible that some difficult jobs may be divided into their components in order that short and intensive training may be available to women to fit them to perform the more simple operations. A bulletin of the United States Employment Service lists 1,858 jobs suitable for women, noting those that can be subdivided.

Various opportunities are now offered for women's training in professional work previously closed to them. For example, a tuition-free, 9 months' course in meteorology has been offered by the United States Weather Bureau, graduates being eligible for positions in that agency and in other Government offices as scientific aides in that field. Women are paid by the Civil Aeronautics Administration while taking 6 months' training to qualify as junior aircraft communicators and airway and airport traffic controllers. Certain industrial establishments are granting scholarships for women in engineering colleges of the first rank. In addition to tuition, provision is made for rooms, board, and nominal salaries. The training plans for the WACs, the WAVEs, the SPARs, and the Marines, have been accorded considerable publicity.

In the judgment of the author of the address under review, "Women should be encouraged to enter all fields of the physical sciences, and courses already on the curriculum should be condensed and contracted." More colleges should be equipped to give a greater variety of scientific courses.

One way of solving problems of equipment and instruction facilities is to correlate the physical science and mathematical programs with the programs of neighboring engineering colleges which have such facilities.

Several conferences looking toward expansion of women's scientific training have already been held. In November, 1942, representatives of about 110 women's colleges and universities attended a conference at which technical training for college women was one of the three major topics discussed. Recommendation was made that "consideration be given to the probable need for increasing the scientific content of the future education for women. In February 1943, the American Association of University Women held a conference on coordinating the resources of women's colleges with war industries employing college women. Representatives of nearly 50 colleges, 25 industrial establishments, and the United States Government, attended this meeting. "Such conferences between educators and industrialists always result in a better understanding of each other's problems."

Vocational Rehabilitation of Disabled Veterans of World War II[1]

VOCATIONAL rehabilitation for disabled veterans of the present war was authorized by a law approved March 24, 1943. Under it, in order to secure training, the applicant must possess a record of active service in the armed forces during the period between December 6, 1941, and the end of the present war, have an honorable discharge, have a disability of at least 10 percent incurred in or aggravated by such service for which pension is payable, and be in need of vocational rehabilitation to overcome the handicap caused by the disability.

About 300,000 members of the armed forces have been discharged for disabilities incurred after December 6, 1941. By October 31, 1943, 2,864 of that number had made applications for vocational rehabilitation and 278 were undergoing training.

The fact that only approximately 10 percent of the discharged disabled veterans have applied for the benefits of the act is attributed by Veterans' Administration officials to the current manpower shortage. One official stated that the defense plants in his territory offered a wide range of employment and that the physical requirements for a job were so low that practically any veteran able to take training could qualify for a job at good wages.

It is expected, therefore that the induction of disabled veterans into training will go forward rather slowly until after cessation of hostilities.

Procedure for Obtaining Training

Prior to discharge, when the veteran is given his final medical examination, a Red Cross representative is to see that the serviceman makes out a claim for a pension. Following that action, the veteran's medical, pension, and claim papers are sent to the Veterans' Administration regional office nearest his home. At present there are 91 offices and facilities of this agency throughout the United States.

At this office the veteran's vocational rehabilitation project is initiated. His papers are examined by a rating board and if they show a need for training, the veteran is sent an application blank for vocational rehabilitation. Upon return of the completed form the serviceman is interviewed by trained vocational advisers who recommend the course the applicant is best fitted to take. The applicant is free to choose his own school in the event schooling is advised.

Under the present arrangement, the Government pays the successful applicant's expenses while he is in training. These expenses include the cost of tuition, books, tools or other training supplies. In addition, the student receives $80 a month while training and for 2 months after he gets a job, plus $10 per month for each dependent parent; married men are to receive an additional monthly sum of $10 for their wives and $5 per month for each child.

Characteristics of Veterans in Training

Of the 278 disabled veterans receiving vocational rehabilitation on October 31, 1943, professional courses in an educational institution were being pursued by 129 (46 percent). The distribution by class or type of training is shown in the following tabulation.

[1] Based upon data supplied to the Bureau of Labor Statistics by the Veterans' Administration.

	Number
Total	278
Professional courses	129
Training on the job	79
Trade and industrial courses	41
Clerical and commercial courses	19
Agriculture	6
Service occupations	4

Of these men, 109 furnished personal information on one or more of a number of points. The 102 who reported on age ranged from 19 to 50 years, but more than 62 percent were between 21 and 25 years of age. The greatest number, 17, were 23 years old.

	Number		Number		Number
19 years	4	25 years	9	31 years	3
20 years	5	26 years	3	32 years	3
21 years	13	27 years	4	35 years	1
22 years	11	28 years	8	36 years	1
23 years	17	29 years	3	37 years	2
24 years	13	30 years	1	50 years	1

Information as to the percent of disability was available for 100 veterans. About 12 percent were only 10 percent disabled, but at the other extreme were 10 who were completely incapacitated. The greatest number (39) had a 30-percent disability.

Disability of—	Number	Disability of—	Number
10 percent	13	60 percent	6
20 percent	9	70 percent	3
30 percent	39	80 percent	3
40 percent	6	95 percent	2
50 percent	18	100 percent	10

Of the 73 veterans whose educational attainments were reported, not one was a college graduate. Two of the group had stopped their schooling at the end of the fourth grade while, at the other end of the scale, 3 had completed the third year of college. Almost 40 percent were high-school graduates.

Years of schooling:	Number	Years of schooling:	Number
4 years	2	10 years	4
6 years	2	11 years	3
7 years	5	12 years	20
8 years	6	½ year of college	2
8½ years	1	1 year of college	5
9 years	5	2 years of college	4
9½ years	2	3 years of college	3

In selecting a means of livelihood, 107 disabled men chose 52 different occupations; 32 occupations were chosen by single individuals and 20 by two or more. Radio engineering attracted the most, 8, and was closely followed by electrical engineering and accountancy with 7 each. Among the pursuits indicated by only one person were dairy farmer, dental mechanic, embalmer, pharmacist, physician, salesman at cigar counter, and upholsterer. The occupations selected by two or more veterans are as follows.

	Number
Radio engineering	8
Electrical engineering; accountancy	7
Aircraft; business administration; drafting	5
Shoe repairing; watchmaking	4
General office work; machinist; precision-lathe operator; secretarial work	3
Agricultural agent; agronomist; auto mechanic; barber; forestry; journalism; sales engineer; typewriter repairman	2

The occupation selected by the veteran must be in line with his ability. In determining that ability, the background, desires and the condition of the applicant are taken into consideration.

In the event that the disability is total and permanent, that fact is of paramount consideration. An example of vocational training for a person of this type is furnished by a veteran who was totally blinded at Guadalcanal. Prior to his military service, he had demonstrated and sold skates, specializing in fitting them for professional skaters. His disability prevents a return to that former occupation, and he is learning to operate a cigar and news stand. His specific objective is to become a salesman at a cigar counter.

Establishment of Textile Trade Schools in Argentina, 1942

SIX textile trade schools, one each in the Argentine Provinces of Catamarca, San Luis, Santiago del Estero, La Rioja, Salta, and Jujuy, were created by law No. 12,785 of October 8, 1942, to advance the interests of hand weaving and weavers throughout Argentina.[1] In these schools the students will prepare the wool, cotton, and silk yarns needed for weaving in these Provinces and prepare for market the hand-woven fabrics consigned to them. The schools will also serve as sales agencies and employment exchanges for the hand-woven-textiles trade, encourage the formation of cooperatives of production and of sale, and foster the cultivation of the silkworm and its industrial utilization.

The weaving shops of schools already operating in the designated Provinces are to constitute in each case a section of the textile trade school. The Government is to regulate the law, establishing a program of study and organizing and operating the textile schools. The designation of the supervising and teaching personnel is to be made on a competitive basis, taking into consideration the credentials, ability, experience, and suitability of each candidate.

The schools are directed to organize exhibits of weaving, and hold in Buenos Aires (center of the tourist trade) an annual exposition and sale of the products of the schools. The profits are to be used to strengthen the financial position of the schools, to advance the hand-weaving industry, and to provide prizes for the weavers.

Each trade school is directed to appraise the fabrics that the weavers turn over to it and at that time to advance them 25 percent of the estimated value; the rest is to be paid within 90 days, even though the fabrics have not been sold, but when sale has not been made a discount of 10 percent is permissible. To facilitate the handling of these fabrics in the distant regions of the Provinces, the tax collectors or justices of the peace are authorized to receive and receipt for them, and forward them to the textile school.

Each of these schools is to have a special section responsible for the free distribution of silkworms and of mulberry plants among persons who are interested in this culture and will follow the in-

[1] Argentina, Boletín Oficial (Buenos Aires), October 17, 1942: Ministerio de Relaciones Exteriores y Culto, Informaciones Argentinas (Buenos Aires), November 15, 1942.

structions which are given them. This section will also have charge of purchasing the silk yarn and cocoons until private industry absorbs this production. Within 6 months after passage of the law, the technical offices were to determine the most suitable regions in the specified Provinces for the planting of mulberry trees and the cultivation of silkworms.

Training of Labor Reserves in Soviet Union, 1940–43[1]

IN October 1940, the Soviet Government issued decrees providing for the occupational mass training of boys for a State Labor Reserve.[2] In the first half year of the program, trade and factory schools, according to the Chairman of the Executive Committee of Labor Reserves, had trained 250,000 young workers. The training program has continued in effect despite the war, but all occupational training has been directed to the sole purpose of increasing the number of new workers in defense industries. It is stated that the "fixed call" quotas of youth to be trained have been completely met during the war period. Altogether there have been 19 calls, resulting in 2½ million boys and girls being enrolled for industrial training.

The number of railroad, factory, and other trade schools, it is reported, has increased from the pre-war total of 1,550 to the current number of 1,700, and this despite the fact that many of the training schools had to be evacuated from the western parts of the Soviet Union. Most of the new schools were established in the Urals, Siberia, and Central Asia. With the recent reconquests of territory by the Russians, about 300 training schools have renewed their activity in regions adjacent to the recent battlefront, and even in liberated territory.

In the period from December 1940 to October 1943 the training schools have provided 1,550,000 trained young workers—more than 450,000 for the munitions industries; about 200,000 for water and railroad transportation; 120,000 for construction work; more than 125,000 for the coal industry; 170,000 for light and heavy metallurgical industries; 55,000 for the power industries, etc. Agriculture has also benefited, for numerous brigades of students in the training schools have visited collective farms to repair tractors and other farm machinery and to make suggestions as to the most efficient use of machinery; the trainees have also made large supplies of replaceable parts for these machines. What is most important is that many of the new workers are participating in the work of reconstruction in the liberated territory.

Not only have the training schools provided new workers but they are stated to have produced, in 2 years and 10 months, manufactured products useful to the front and to industry, valued at 3 billion rubles. An exhibition of these products was scheduled to open in Moscow on October 20, 1943.

[1] Data are from article in Pravda (Moscow), October 2, 1943 (p. 2).
[2] See Monthly Labor Review, February 1941 (p. 393).

Labor Organizations

1943 Convention of Congress of Industrial Organizations [1]

THE sixth constitutional convention of the Congress of Industrial Organizations, held in Philadelphia, November 1–5, was attended by more than 500 delegates, representing 5,285,000 wage earners organized into 40 national and international unions and organizing committees and 368 local industrial unions. The convention acted upon a large number of problems related to the war, particularly in the fields of production, supply of manpower, wages and prices, labor legislation, and international relations. Outstanding were three major policy decisions of the C. I. O., which were first outlined in President Murray's report and then adopted in the form of resolutions by the convention. These policies dealt with labor's "no-strike" pledge, the new wage policy of the C. I. O., and its program for political action.

No-Strike Pledge

The convention reaffirmed the determination of the C. I. O. to maintain without qualifications or conditions its no-strike pledge for the duration of the war. Each member and each union leader of the C. I. O. was urged to see to it "that for the duration of the war, issues in dispute between labor and management must be adjusted through the peaceful means of collective bargaining, mediation, or through disposition by the National War Labor Board."

New Wage Policy

The importance attached to the change in the policy of the C. I. O. with regard to wages may be gauged from the fact that President Murray called an extraordinary session of the executive board to deal with this question. The resolution submitted to the convention was presented as the unanimous decision of that board, and read in part, as follows:

> Whereas, * * * labor has vigorously pointed out the absolute necessity for firm action on all fronts if sound stabilization is to be achieved—action which would result in equal and impartial stabilization of all aspects of our war economy, including prices, profits, salaries, and wages. Such a program obviously requires effective control of prices, a sound tax system to curb high incomes and swollen corporate profits, and a sound wage-stabilization program which would assure to workers levels of payment calculated to promote production, preserve health and working efficiency, and assure the highest national morale. * * *
>
> *Resolved*, (1) That it has become necessary to eliminate the so-called "Little Steel" formula which, particularly in view of the rise in the cost of living and the added burdens on the workers, is no longer in accord with reality. The working men and women of America must be permitted, through the sound and stable processes of collective bargaining, to secure wage adjustments to levels necessary

[1] Prepared in the Bureau's Labor Information Service by Boris Stern and Eleanor Finger.

to maintain their morale, health, and efficiency and to meet the special needs imposed on them in this war period;

(2) The sound and tested processes of collective bargaining must be freed to secure the elimination of inequalities and inequities in wage structures and to bring about, where feasible, industry-wide stabilization of wage structures on the basic principle of equal pay for the same work;

(3) Continued action must be assured to bring about the lifting of substandard wage rates to minimum levels of American decency;

(4) A truly stabilized national war economy must be secured through the achievement of these wage-policy objectives, combined with a determined insistence upon a policy of vigorous price control, over-all rationing, and a firm taxation policy calculated to raise the funds necessary for victory out of the luxury living levels reflected in corporate profits and high-income brackets and not out of the food budgets of workers. Any continued failure to assure strong price control, over-all rationing, and taxation truly based upon ability to pay will, of course, require future readjustment of wages in the effort to protect the health, welfare, and morale of the home front against consequences disastrous to our march to victory.

Some of the specific charges directed by the delegates against the present policy of the War Labor Board were:

1. The present "Little Steel" formula, tied as it is to a percentage basis, is unsound economically, because it permits the granting of the smallest wage increases to substandard workers whose wages are among the lowest and who therefore need the increases most.

2. The War Labor Board is attempting to handle in great detail too many phases of the national wage structure, leaving very little room for genuine collective bargaining. Its machinery is overtaxed, resulting in long delays before settlement.

3. The perpetuation of regional wage differentials through the wage-bracket system prevents the unions from establishing the principle of equal pay for equal work on an industry-wide basis.

4. Inequality of sacrifice results when wages are frozen by the rigid adherence of the War Labor Board to its "Little Steel" formula, while profits and prices continue to rise.

To make it possible for the War Labor Board to deal with these problems and at the same time to give wider latitude to the process of collective bargaining between unions and management, the President of the C. I. O. presented a threefold program:

(*a*) The national commitment of the Government must be met in rolling back prices to the level of September 15, 1942, or the difference, at least, made up to the wage earners by adjustment in their wage rates.

(*b*) The War Labor Board must be given the authority to make necessary wage adjustments to eliminate wage-rate inequalities or to otherwise aid in the effective prosecution of the war. * * * The processes of collective bargaining in the field of wage-rate inequalities must be permitted to operate.

(*c*) The National War Labor Board should give heed to the needs of basic and mass-production industries where the wage pattern has been established on a national basis so that wage adjustments could be made within such industries on the basis of equal pay for like work.

He stated further that the C. I. O. will oppose any attempt by any Government agency to impose a national incentive-wage system, and indicated that this problem can best be solved through collective bargaining in the specific cases.

In line with this new wage policy, the C. I. O. convention adopted a resolution supporting as "just" the wage demands of the 1½ million operating and nonoperating railway employees and the half million mine workers. It called upon their leaders to join with the C. I. O. in a drive "to bring about a realistic revision of the out-worn national wage policy while continuing without interruption the flow of planes, tanks, guns, and food needed by the fighting men on the battle fronts."

Political Action

Confronted with a rapidly rising tendency toward Federal and State anti-labor legislation and recognizing the potential political strength of a united labor movement comprising about 14,000,000 workers, the C.I.O. executive board in July established a political action committee "to take the initiative in launching a broad and intensive campaign of political education in its deepest and most practical sense." Sidney Hillman, president of the Amalgamated Clothing Workers, was named chairman of this committee. In his report on the activities of this committee during the 3-month period of its existence, Mr. Hillman emphasized that the political action committee does not intend to form a new independent political party. Its main purpose is to unite on the political field all the liberal elements of the Nation, including the C. I. O., the A. F. of L., the railroad brotherhoods, farm groups, consumers, and other progressive groups. Its immediate objectives are to help the Government crush the Axis powers, to formulate a constructive post-war program, and to guarantee labor and the common people a voice at the peace table.

In the course of his report, Mr. Hillman indicated that the political action committee will be supported largely from funds subscribed by the unions, and that the operations will be carried out on a national scale and on a local and regional basis through regional and local directors. He announced that a fund of $700,000 had been pledged by the major C. I. O. unions, and that the United Steelworkers of America, the United Automobile, Aircraft, and Agricultural Implement Workers, the United Electrical, Radio and Machine Workers, and the Amalgamated Clothing Workers would contribute $100,000 each.

International Relations

The C. I. O. position on foreign policy was made clear in a resolution, which read in part:

> We are fighting for the right of the people of every nation to be free; the right of the people to settle their own affairs and to choose their own governments. We are fighting for the right of the common people to be free from want, free from fear, and the right to achieve security and to make a decent living. We are fighting for the right of the working men and women of all countries to join labor unions of their own choosing so that through such democratic machinery they can in turn assure the continuance of democracy within their respective nations.

The same resolution urged the State Department to provide labor attachés to all American embassies in foreign countries, to emphasize labor's concern and interest in foreign relations.

Labor's participation at the peace table was one of the major objectives stressed by the delegates. President Murray's announcement that the C. I. O. had been invited to attend a world conference of labor, called by the British Trades Union Congress to convene in London in May or June 1944, was enthusiastically applauded.[2]

[2] In a release of November 6, the British Information Service announced that the general council of the British Trades Union Congress had issued a call for a world trade-union conference to be held in London, beginning on June 5, 1944. The conference will be exploratory and consultative. The decisions taken will not be binding upon the constituent organizations unless endorsed by them. Representative national trade-union bodies of the United Nations were invited to send delegates. The International Federation of Trade Unions and other bodies will also be asked to appoint representatives.

The agenda suggested by the Trades Union Congress includes the following: Furtherance of the Allied war effort; attitude of the trade-unions toward the prospective peace settlement; representation of the trade-unions at the peace conference; and problems of post-war reconstruction, including the reconstruction of the international trade-union movement.

Cooperation with Latin American labor.—Because of the growing need for cooperation with the labor movements in Latin America, the C. I. O. executive board established early in 1943 a special committee on Latin American affairs, with Jacob Potofsky, secretary-treasurer of the Amalgamated Clothing Workers, as chairman. In the course of the year, several representatives of this committee visited a number of Latin American countries and conferred with representatives of the different Latin American labor organizations. The committee's report to the convention described the recent growth of the trade-union movement in South and Central America, the working conditions prevailing in those countries, and the need for moral and financial support from American labor to further the progress of the trade-union movement throughout the western hemisphere.

Racial Discrimination

In keeping with the C. I. O. policy favoring equality of treatment for all people, irrespective of race, creed, or color, the convention went on record, in resolutions and speeches, for the security and preservation of rights of minority groups in the United States. The delegates voted to support the bill pending in Congress for the repeal of the Oriental Exclusion Act, and adopted a resolution urging the rescue of those Jews who have survived the German atrocities in the Nazi-occupied countries.

The major discussion centered on the problem of Negro discrimination. The poll-tax system was condemned by northern and southern delegates alike. In the closing speech on this question, President Murray asserted in part:

> The constitutions of all our [C. I. O.] organizations set out a principle which in substance says that there shall be no discrimination against anyone, regardless of color, creed, or nationality. If our international unions follow the provisions of their constitutions and our local officers accept in their hearts the true meaning of these provisions, they can do much to eliminate many of the evils that have grown out of discrimination down through the years.

The resolution adopted called for (1) continuous support of the President's Fair Employment Practices Committee and the national C. I. O. committee to abolish racial discrimination, (2) the prosecution of those fomenting race riots, and (3) an Executive decree to end the United States Army policy of segregating Negro troops.

Government War Agencies

In a separate resolution on "labor representation in war agencies" the Congress of Industrial Organizations renewed its demand that the war effort be strengthened by the inclusion of direct or effective labor representation in the formation and administration of policies in all agencies of the Government.

National War Labor Board.—The resolution adopted stressed the importance of the tripartite composition of the National War Labor Board and praised its accomplishments in the field of industrial relations. In commending the Board for its contribution to continuous maximum production based on sound labor-management relations, the convention particularly stressed the Board's "realistic and morale-strengthening policies, as are reflected in its decisions on the issue of

union security and on the question of equal pay for equal work without discrimination on the basis of sex, color, or race." The same resolution urged the National War Labor Board to carry out its solemn obligations to settle all labor disputes where collective bargaining and mediation have failed.

War Manpower Commission.—In its resolution on manpower, the C. I. O. convention went on record as opposed to the enactment of any national service legislation. The convention recommended instead that the Office of War Mobilization perfect plans for a unified direction, planning, and scheduling on a national level of all factors of production, including available manpower and plant facilities. It also requested that employers be directed and compelled to utilize in full the services of Negro workers, aliens, and available women workers, and called upon the War Manpower Commission to encourage the expansion of area employment-stabilization programs adopted and administered with the assistance of joint labor-management committees in the area.

Additional suggestions for the better utilization of available manpower in war production industries included the provision of more adequate service facilities, such as housing, transportation, child care, etc.; more intensive use of upgrading programs; and less hoarding of skilled labor, and further job simplification.

Office of Price Administration.—Several resolutions were adopted that concerned the work of the OPA directly or indirectly. One resolution called upon the Congress of the United States to enact the necessary measures "to assure full control of prices of cost-of-living commodities, including measures to make available adequate funds for subsidies or other payments to prevent any increase in prices and to protect the farmers and the small businessmen." One resolution praised the Office of Price Administration for its vigorous and intelligent enforcement of rent controls and urged the OPA to continue the program in full force and to resist "all pressures from special interests seeking to break down or relax the rent-control program." Another resolution called upon Congress "to give concrete proof of its intent to stabilize prices and rents and to control inflation by giving immediate approval to a deficiency appropriation which shall provide at least double the number of investigators available to the OPA for the enforcement of its regulations."

War Production Board.—President Murray's report analyzed in considerable detail the growth of labor participation in the work of the War Production Board in the face of opposition on the part of managerial groups, inadequate budget provisions, and other devices used to by-pass or hamper the work of the labor representatives. He urged the C. I. O. unions to develop individuals from their ranks in sufficient numbers to assume important posts in the WPB, on both a national and regional level.

Social Security and the Post-War Program

The Wagner-Murray-Dingell Social Security Bill now pending in Congress, which provides a wider scope and increased benefits for unemployment compensation on a Federal basis, old-age security, permanent-disability benefits, and a system of health insurance, was unanimously endorsed by the convention. The same resolution

called for an equitable allocation of the increased social-security costs among employees, employers, and the Government.

A substantial portion of President's Murray's annual report dealt with the work of the C. I. O. post-war planning committee, which is composed of Clinton S. Golden, assistant to the president of the United Steelworkers of America, John Brophy, director of C. I. O. industrial union councils, and J. Raymond Walsh, director of the C. I. O. department of research and education. As a background to the report and the recommendations of this committee, the president said in part:

> The Nation has shown remarkable prowess in producing a Niagara of materials for war. This demonstrates that it has the knowledge, the skills, the machines, and the resources to produce a "gold standard of living" for every American.
>
> No longer need he be worried about a job, about hunger, about doctor's bills, about fear-ridden and poverty-pinched old age. The following essentials can be assured to everyone:
>
> A job at union wages or a farm, business, or profession that pays.
>
> A well-built, convenient home decently furnished.
>
> Good food, clothing, and medical care.
>
> Good schooling for children with an equal chance for health and happy growth.
>
> An income through social insurance in case of sickness, old age, early death of the wage earner, or unemployment.
>
> Farm operators, sharecroppers, wage earners, businessmen, professional men, and housewives—all can enjoy genuine freedom from want and fear, if we, as a Nation, are only determined to achieve it.

To accomplish these objectives, the committee specifically recommended that—

1. The Government should develop in advance sound policies for ending war orders in such a manner as to keep down unemployment and waste. It must help businessmen to clear their plants of half-finished goods and to get working capital for starting civilian production.

2. The Government-owned new plants, which with their equipment and other property are valued at approximately 23 billion dollars, and the vast stores of machine tools, trucks, airplanes, food, and other usable war material, should be so disposed of by the Government as to encourage the maximum amount of output at low prices, with profits kept at reasonable levels, and monopoly prevented.

3. A Federal agency should be established at once to plan for a speedy and orderly transition to full peace-time consumption, employment, and production. It should be headed by a policy board with representatives from agriculture, labor, and business.

4. Price and distribution controls should be continued and other efforts made to prevent a runaway boom.

5. Dismissal wages should be paid to all war workers who lose their jobs when war orders are cut back, but such dismissal pay should not be considered as a substitute for unemployment insurance or be construed as an alternative to the needed social-security legislation of the type covered by the Wagner-Murray-Dingell Bill.

6. Plans should be made as rapidly as possible to provide jobs and other opportunities for gainful living to the returned soldiers and sailors. These include adequate dependents' allowances, special educational programs and scholarships, full protection for disabled servicemen, widows and orphans, and dismissal payments to give veterans a new start in life.

Constitutional Amendment

The delegates voted to amend the C. I. O. constitution to permit unions with over 200,000 members to send to the convention more than the 10 delegates previously allowed under the old provision. Representation for the larger unions will hereafter be determined on the following basis: "8 delegates for the first 100,000 members and 1 additional delegate for each additional 50,000 or majority fraction thereof." According to the committee on constitution, the change is designed to enlarge the area of representation at the convention and will not affect the voting strength of any of the affiliated unions.

Officers Elected

On the closing day of the convention, President Philip Murray, Secretary-Treasurer James B. Carey, and the nine vice presidents were unanimously reelected.

Industrial Disputes

Strikes in October and November 1943

THE last strike statistics published in the Monthly Labor Review were estimates for the first 6 months of 1943, which appeared in the August 1943 issue. As explained in the September issue, monthly strike statistics were temporarily discontinued when the newspaper clipping service of the Office of War Information was abandoned as of July 1, 1943, because of a reduced budget. This clipping service was restored in October and consequently estimates for October and November are now available. Figures for July, August, and September are being prepared and will appear in the Bureau's annual report on strikes.

Estimates for October and November 1943 with comparative figures for these months in 1941 and 1942 appear below. In both October and November 1943, the coal-mining stoppages accounted for a large part of the total strike activity. In October they accounted for about 40 percent of the total workers involved in strikes and more than half of the total idleness. In November the general stoppage of coal miners accounted for about 80 percent of the total workers involved and 87 percent of the idleness.

Idleness during strikes in October was about 0.12 percent of the available working time; in November it was 0.36 percent.

Strikes October and November 1943, 1942, and 1941

Month	Strikes beginning in month		Man-days idle during month (all strikes)	
	Number	Workers involved	Number	Percent of available working time
1943: October [1]	290	215,000	975,000	0.12
November [1]	300	500,000	2,825,000	.36
1942: October	207	61,593	243,756	.03
November	144	52,481	128,164	.02
1941: October	432	197,803	1,925,328	.25
November	271	227,721	1,396,585	.20

[1] Preliminary estimates

Activities of the United States Conciliation Service, November 1943

THE United States Conciliation Service, during November 1943, disposed of 2,108 situations involving 873,575 workers (table 1). The services of this agency were requested by the employers, employees,

and other interested parties. Of these situations, 204 were strikes and lockouts, involving 70,172 workers; 1,233 were threatened strikes and controversies, involving 314,509 workers.

During the month 353 disputes were certified to the National War Labor Board, and in 66 cases other agencies assumed jurisdiction. The remaining 252 situations included investigations, arbitrations, requests for information, consultations, etc.

TABLE 1.—*Situations Disposed of by the United States Conciliation Service, November 1943, by Type of Situation*

Type of situation	Number	Workers involved
All situations handled	[1] 2,108	873,575
Labor disputes	1,437	384,681
Strikes	203	70,167
Threatened strikes	154	61,682
Lockouts	1	5
Controversies	1,079	252,827
Other situations	252	25,872
Arbitrations	88	10,403
Technical services	12	10,096
Investigations	53	2,891
Requests to conduct consent elections	1	25
Requests for verification of union membership	1	121
Requests for information	18	29
Consultations	37	91
Special services of Commissioners	33	2,205
Complaints	9	11
Disputes referred to other agencies during negotiations	419	463,022
To National War Labor Board	353	422,512
To National Labor Relations Board	38	31,278
To other Federal agencies	15	6,328
To Wage Adjustment Board	4	1,860
To nongovernmental agencies	6	986
To State agencies	3	58

[1] During the month 179 cases involving 64,235 workers were adjusted subject to Hearings Officer or Arbitration procedure with the Hearings Officer or Arbiter to be selected by the National War Labor Board.

The facilities of the Service were used in 27 major industrial fields, such as building trades and transportation, and the manufacture of iron and steel, transportation equipment, textiles, food, etc. (table 2), and were utilized by employees and employers in 46 States and the District of Columbia (table 3).

TABLE 2.—*Situations Disposed of by United States Conciliation Service, November 194[illegible], by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries	1,856	847,703	252	25,872	2,108	873,[illegible]
Agriculture						
Building trades	61	23,309	5	507	66	23,[illegible]
Chemicals	48	19,589	14	648	62	20,[illegible]
Communications	5	1,223			5	1,[illegible]
Electrical equipment	44	35,396	4	181	48	35,[illegible]
Food	162	29,914	19	437	181	30,[illegible]
Furniture and finished lumber	46	15,048	7	104	53	15,[illegible]
Iron and steel	242	114,522	24	595	266	115,[illegible]
Leather	30	6,960	13	633	43	7,[illegible]
Lumber	45	5,259	5	144	50	5,[illegible]
Machinery	69	24,414	12	582	81	24,[illegible]
Maritime	10	47,538			10	47,[illegible]
Mining	28	3,405	1	3,150	29	6,[illegible]
Motion pictures	6	756			6	75[illegible]
Nonferrous metals	65	50,450	12	5,155	77	55,[illegible]
Paper	20	8,526	9	196	29	8,72[illegible]
Personal service	164	20,829	11	645	175	21,47[illegible]
Petroleum	25	13,090	2	437	27	13,5[illegible]
Printing	48	1,727	4	157	52	1,88[illegible]
Professional	9	1,505	1	5	10	1,5[illegible]
Rubber	23	35,926	6	508	29	36,43[illegible]
Stone, clay, and glass	56	52,643	12	162	68	52,80[illegible]
Textile	83	57,005	18	2,208	101	59,21[illegible]
Tobacco	7	1,576	3	501	10	2,07[illegible]
Trade	209	13,747	9	373	218	14,12[illegible]
Transportation	124	22,210	6	668	130	22,87[illegible]
Transportation equipment	154	224,385	30	4,378	184	228,76[illegible]
Utilities	16	6,961	2	35	18	6,99[illegible]
Miscellaneous	57	9,790	23	3,463	80	13,2[illegible]

TABLE 3.—*Situations Disposed of by United States Conciliation Service, November 1943, by States*

States	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	1,856	847,703	252	25,872	2,108	873,575
Alabama	22	11,670	2	6	24	11,676
Alaska						
Arizona	13	18,520			13	18,520
Arkansas	8	696			8	696
California	114	39,901	20	1,095	134	40,996
Colorado	15	278			15	278
Connecticut	11	20,911	4	115	15	21,026
Delaware	3	1,019	1	450	4	1,469
District of Columbia	9	4,856	4	527	13	5,383
Florida	25	2,847	2	6	27	2,853
Georgia	16	4,052	1	2	17	4,054
Hawaii						
Idaho	3	1,197	1	3,150	4	4,347
Illinois	156	56,444	21	878	177	57,322
Indiana	130	41,134	7	454	137	41,588
Iowa	37	16,035	2	102	39	16,137
Kansas	30	41,967	1	52	31	42,019
Kentucky	23	5,680	1	3,260	24	8,940
Louisiana	17	2,665	6	217	23	2,882
Maine	6	12,029			6	12,029
Maryland	29	12,969	2	6	31	12,975
Massachusetts	49	32,464	15	664	64	33,128
Michigan	126	56,192	32	4,958	158	61,150
Minnesota	23	7,405	5	90	28	7,495
Mississippi	4	9,098	1	100	5	9,198
Missouri	203	12,625	15	537	218	13,162
Montana	11	12,218	1	33	12	12,251
Nebraska	22	1,045			22	1,045
Nevada	3	570			3	570
New Hampshire	2	2,700	1	3	3	2,703
New Jersey	48	16,311	6	1,327	54	17,638
New Mexico	2	162			2	162
New York	141	139,375	15	791	156	140,166
North Carolina	25	28,569	7	728	32	29,297
North Dakota	1	5			1	5
Ohio	150	52,379	27	1,745	177	54,124
Oklahoma	11	2,830	1	2	12	2,832
Oregon	39	5,581	2	17	41	5,598
Pennsylvania	134	97,569	18	1,918	152	99,487
Rhode Island	5	693	4	1,102	9	1,795
South Carolina	5	1,394	2	54	7	1,448
South Dakota	1	4			1	4
Tennessee	27	8,915	2	2	29	8,917
Texas	33	40,273	5	7	38	40,280
Utah	4	1,302	1	2	5	1,304
Vermont						
Virginia	22	4,058	3	742	25	4,800
Washington	26	7,452	2	39	28	7,491
West Virginia	22	2,291	6	543	28	2,834
Wisconsin	50	9,353	6	148	56	9,501
Wyoming						

Earnings in Southwestern Petroleum Refineries, April 1943 [1]

Summary

A DETAILED study by the Bureau of Labor Statistics of 10,583 male workers in selected occupations—about 40 percent of the total labor force of 117 petroleum refineries in Texas, Oklahoma, and Louisiana—disclosed that nearly four-fifths were classified in jobs which showed straight-time average hourly earnings of $1.00 or more. As a group, these employees earned an average of $1.16 per hour in April 1943. Workers in Texas and Louisiana earned an average of $1.18 an hour as compared with $1.05 in Oklahoma. The highest hourly earnings ($1.24) were found in the Gulf Coast area of Texas, while the average for the inland Texas area ($1.00) was the lowest. These regional variations are, in large part, a reflection of differences in size of operation and technological processes, both of which appear to have pronounced effects on levels of earnings. Of the 34 specific occupational groups studied in detail, only 7 showed average hourly earnings below $1.00; less than a fifth of the workers covered were classified in these 7 groups. The averages for 9 occupational groups, which included more than a fourth of the workers studied, amounted to $1.25 or more per hour. The apparent upward trend of earnings in Southwestern petroleum refineries during the past 18 months is in part a reflection of the closing of disproportionate numbers of small and relatively lower-wage operations as a result of changes largely occasioned by the war.

Characteristics of the Industry

According to standard trade directories, at the close of 1942 there were in operation in the United States 412 petroleum refineries with a daily crude-petroleum capacity of 4,780,025 barrels. Texas, Oklahoma, and Louisiana accounted for 129 of these, with a daily capacity of 1,853,030 barrels—31 percent of the total number of refineries and 39 percent of the Nation's refinery capacity.

The expansion of the petroleum-refining industry was accompanied in peacetime by the processing of such tremendous quantities of crude oil that inadequate attention was given to the effective utilization of the full range of petroleum products. This resulted in the lack of

[1] Prepared in the Bureau's Division of Wage Analysis by C. Wilson Randle, Region XII, Dallas, Tex. The Bureau is indebted to the many officials of cooperating companies through whose courtesy these data were made available. A preliminary edition (mimeographed) of this article was issued earlier by the Bureau, and approximately the same material appeared in the December 1943 issue of the Petroleum Engineer.

development of certain petroleum derivatives, with a consequent neglect of their potentialities as sources of fuel and chemical products. The requirements of the war, however, made extraordinary demands on the refining industry. The need for tremendous quantities of aviation gasoline and special lubricants for the thousands of fighting planes, the importance of breaking the explosives bottleneck by producing toluene from petroleum, the urgency of the new synthetic-rubber industry, and the need of the Army and Navy for emergency technical advice all provided a tremendous incentive for research and development in petroleum refining. New techniques have been developed, making available fuel types that would normally require years to produce. The art of oil refining has advanced so rapidly that there is little exaggeration in the statement that expensive equipment sometimes becomes obsolete almost before its construction is completed. Petroleum-refining technology has expanded the oil business into a highly developed type of chemical industry.

Modern refineries may be divided into two broad types, the distillation plant and the cracking plant. Distillation, the oldest process for separating petroleum into its constituents, consists of the simple physical separation of a liquid hydrocarbon into fractions with different boiling points. Distillation plants range from the simple skimming or topping plant to the establishment equipped for complete distillation. Cracking is of more recent origin and involves the actual chemical rearrangement or breaking down of heavy hydrocarbons into lighter hydrocarbons and carbon. All varieties of combinations of distillation and cracking plants exist in the petroleum industry today.

In the skimming or topping plant, the gasoline and/or kerosene fractions of the crude oil are removed by a simple distillation process utilizing heat but little or no pressure. After the gasoline and kerosene fractions are removed, the remaining heavy oil is usually marketed as fuel oil. In the complete distillation plant, not only are the gasoline and kerosene fractions removed, but various other fractions are distilled off and refined into lubricants, greases, and other special products. Coke and/or asphalt remain as a residual product in this type of refinery operation. The complete distillation plants are usually large-scale operations, while the skimming plants are ordinarily designed to supply local needs. It is estimated that approximately half of the gasoline used in peacetime was derived from distillation operations.

The cracking plant utilizes a process for converting the higher into lower molecular-weight hydrocarbons. This process can be accomplished by the application of heat and pressure (thermal cracking) or by the action of catalysts under conditions which give negligible thermal cracking (catalytic cracking). The catalyst not only accelerates but also directs the course of the cracking reaction to give better yields of higher quality products. It is to the improvement in "cracking" methods that much of the credit should go for the recent outstanding accomplishments of the petroleum-refining industry.

Thermal cracking produces approximately half of the 600,000,000 barrels of gasoline refined annually in the United States. On the basis of output, it may thus be considered as the most important form of processing by cracking. On the other hand, catalytic cracking is so important in the production of such war materials as aviation gaso-

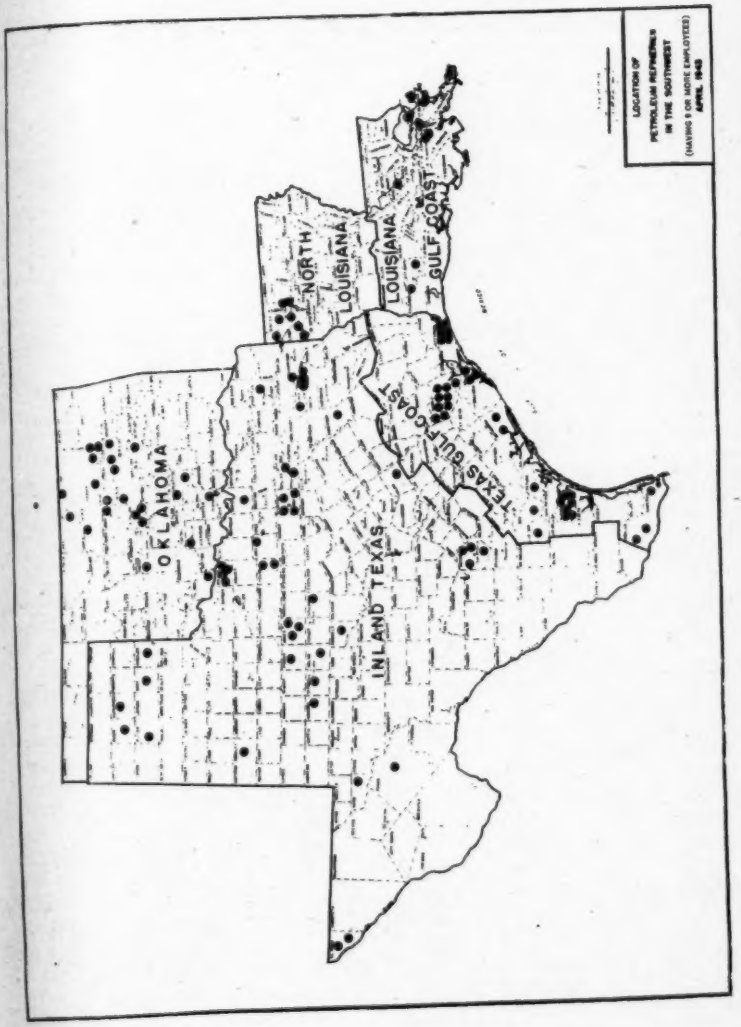
line, butane-butylene hydrocarbons, aromatic hydrocarbons, and butadiene, that enormous impetus has been given this more recent form of cracking. At the end of 1942, according to reliable estimates, about 30,000,000 barrels of cracked gas were being produced annually by the catalytic process, and this type of operation was being subjected to rapid extension. Today, of the 412 refineries of the United States, 77 are equipped for catalytic cracking. Development of this type of processing is currently restricted to units of large capacity, chiefly because of the operating economies accruing to volume operations and the saving of steel and other critical materials.

According to trade journals, the number of operating refineries in the United States decreased by 39 during the year ended in March 1943. The Bureau of Labor Statistics found that, from March 1942 to September 1943, 25 refineries in Texas, Oklahoma, and Louisiana ceased operations. Sixteen of these were in Texas, 8 in Oklahoma, and 1 in Louisiana.

The closing of these plants resulted largely from war conditions, such as lack of transportation facilities, restrictions on the use of critical materials, inability to obtain labor, and, in some sections, the growing lack of crude oil. Contributing to this influence is the "big inch" pipeline, recently completed, which transports crude oil to the East Coast and thus reduces the refinery operations in the producing regions. Perhaps more important than these factors, however, is the trend toward larger refineries, as a result of the more efficient use of critical materials in the larger refineries equipped for cracking and the fact that the small skimming plants turn out only inferior gasoline and have a rather low recovery ratio of gasoline to crude oil processed. The Bureau of Labor Statistics found that 17 of the 25 refineries which have closed in Texas, Oklahoma, and Louisiana since March 1942 were small plants employing skimming operations only. The decreased crude supply and the demand for superior grades of petroleum products have thus been a potent combination in closing the smaller and less efficient refineries.

The location of petroleum refineries is determined primarily by the most favorable combination of two factors—proximity or low-cost access to a supply of crude petroleum and the location and nature of the consuming market. One would thus expect refineries to be situated near "feeder" pipelines, railroad centers, water-transportation facilities, producing fields, or large centers of population. Reference to the distribution of refinery operations in Texas, Oklahoma, and Louisiana confirms such an assumption. (See map, p. 127.) Concentrations of refineries occur near Corpus Christi, Houston, Beaumont-Port Arthur, Dallas-Fort Worth, San Antonio, Wichita Falls, Shreveport, and New Orleans. Other refineries in these States are rather widely dispersed over a considerable area, but in the main are small skimming or topping plants taking advantage of local production and catering almost exclusively to local demands.

Refining practice in various areas has been influenced by the demands of the market in which the products of the refinery are sold. For example, cracking is more important on the Gulf Coast, where there is a growing demand for high-octane gasoline, toluene, or butadiene for war uses, than in inland areas, where there is a greater demand for lower-octane gasoline for motor-car use or for fuel oil because of the high cost of coal. The type of crude oil produced within a region may also influence refinery operations. By way of


LOCATION OF PETROLEUM REFINERIES IN THE SOUTHWEST (HAVING 5 OR MORE EMPLOYEES) APRIL, 1942
NORTH LOUISIANA
LOUISIANA GULF COAST
TEXAS GULF COAST
OKLAHOMA
INLAND TEXAS

illustration, the refining techniques utilized in processing the "sweet" oils of the Texas Gulf Coast would necessarily have to be modified and supplemented by additional processes if the "sour" crude oils of West Texas were used as base stock.[2] Again, the presence of paraffin-base oils might require processing methods somewhat different from those utilized for asphalt-base oils. In brief, refining practices must be modified to meet the need of the type of crude petroleum currently being processed.

The various characteristics of petroleum refining set forth in the preceding paragraphs necessarily influence wage rates and occupational structures. In general, a more skilled type of labor is required for cracking processes than for skimming or topping operations. As a consequence, wage rates show a distinct tendency to be higher in areas where there is a predominance of plants equipped for cracking than in areas where simple distillation is relatively more important. As evidence of this tendency, wage rates are significantly higher along the Gulf Coast of Texas and Louisiana where cracking plants are concentrated than in the inland areas of these States where skimming and topping are more prevalent. Large establishments, for a variety of reasons, generally pay higher wages than do the smaller ones. Consequently, the predominance of large refinery units within an area tends to create higher wage levels than would prevail in sections where there are greater proportions of smaller units. The presence of large refinery units in the Louisiana Gulf Coast region has doubtless contributed to a wage level distinctly higher than in North Louisiana where the units are smaller. In this same connection, the significant number of small and relatively low-wage plants which have closed in recent months in the Southwest has probably contributed to the rise in the general level of refinery wages.

The occupational structures of petroleum refineries are also influenced by certain of the factors previously mentioned. Large plants with a more extended division of labor usually have a greater number of occupations than do the smaller establishments. More and different occupations are generally found in plants equipped for cracking than in plants employing only topping operations. Processing of paraffin-base crude oils may give rise to occupations not found in plants processing asphalt-base oils. West Texas refineries utilizing sour oils have different occupations from those found in Gulf Coast refineries which process sweet oils, as well as a greater number of jobs. Modern refineries with a large proportion of automatic equipment use fewer employees than older-type establishments. In addition, these employees tend to have more varied duties than those in older types of refineries where the equipment being utilized enforces strict division of labor. The same tendency is also apparent in the smaller refineries where several jobs may be done by one employee. Apparently in both the more modern refineries and in the smaller refineries there appears to be no strict adherence to a very fine division of labor.

Practices and characteristics of the petroleum-refining industry thus appear to be significant influences with regard to the level of wages, the occupational structure of the industry and, to a less extent, the method of labor utilization.

[2] Sour crude oils are usually defined as those which possess some compound of sulphur or some other ingredient which imparts corrosive characteristics to the crude petroleum stock. Sweet crude oils are those which do not possess corrosive qualities.

Scope and Method of Survey

This survey of wages paid in the petroleum-refining industry in the Southwest was undertaken by the Bureau of Labor Statistics as part of its program of securing basic wage information for use in the wage-stabilization program.[3] Included in the survey were 33,923 employees in 117 refineries in Texas, Oklahoma, and Louisiana. These establishments represent all of the petroleum refineries in these States which had 9 or more employees and were operating in April 1943, the time of the survey. Of the refineries studied, 78 employing 20,626 persons were in Texas, 23 employing 5,131 workers were in Oklahoma, and 16 employing 8,166 workers were in Louisiana. Detailed wage information was obtained for 34 selected plant occupations covering 10,583 workers, or approximately 40 percent of the total plant employment.

No attempt was made to cover all occupations in the industry. The intent was to cover such key occupations as would adequately represent the wage structure of the industry. The choice of occupations was guided by consideration of the following criteria: (1) Stability and definiteness of the occupation; (2) strategic importance from the standpoint of collective bargaining; (3) numerical importance; (4) critical importance from the standpoint of war effort; (5) representativeness of the range of earnings. Needless to say, the occupations selected do not satisfy all these requirements equally well. Considered as a whole, however, they are believed to provide an adequate picture of the wage structure.

The majority of refineries in the Southwest work a partial or skeleton night and "swing" shift. This tendency has become increasingly evident as the pressure of war demands has necessitated longer producing hours. Any differential amount that is paid for such shifts has been excluded from the data. Extra earnings from premium pay for overtime were also eliminated.[4] As a result, the average earnings presented in this report are straight-time hourly earnings, exclusive of premium overtime and shift-differential payments. It should also be emphasized that the averages shown are occupational averages and do not necessarily reflect the range of earnings of individual workers.

The wage data were taken from pay-roll and other plant records by experienced representatives of the Bureau of Labor Statistics, who used a standard set of occupational definitions in classifying the employees of each company studied.

For purposes of indicating differences in wage levels, the Gulf Coast areas of both Texas and Louisiana have been tabulated separately in this study. This is not intended to imply that geographical considerations are a primary cause of these differences. Such variations as exist in petroleum refining in the Southwest are apparently due to size of establishment and processing method rather than to geographical influences. Proximity to a source of crude oil and to cheap transportation facilities has resulted in the location along the Gulf Coast, of the larger refineries using intricate processing methods requiring a more skilled type of labor. The regional distinctions are therefore in

[3] Reports of earlier studies of this industry made by the Bureau in 1920 and 1934 may be found in the Monthly Labor Review for May 1921 (p. 50); August 1922 (p. 87); July 1935 (p. 13); and November 1935 (p. 1305).

[4] With negligible exceptions, time and a half after 40 hours a week or 8 hours a day was paid by Southwest petroleum refineries. Incentive systems are nonexistent in the petroleum-refining industry of the Southwest; consequently all wages shown are actually hourly wage rates.

reality differences resulting from size of establishment and type of process rather than from geography.

The Labor Force

The majority of occupations in petroleum refineries require a high degree of skill, which can ordinarily be acquired only after a considerable period of experience. As technological advance is made in the industry and processes become more complex, an even greater premium is placed upon experience and skill. Efforts have been made, therefore, to reduce labor turnover to an absolute minimum. Personnel policies, high wage rates, and the obviously essential character of the work have contributed to the success of this endeavor. It may be noted in this connection that the petroleum-refining industry of the Southwest does not employ many women. The survey disclosed that, in spite of a serious manpower shortage, less than 1 percent of the total number of plant employees found in selected occupations were women.[5] Further, all the female employees found were working as janitresses, routine testers, and stock clerks—jobs requiring comparatively little skill. However, women are being hired in increasing numbers,[6] mainly for work in the offices of the refineries. The Bureau of Labor Statistics found that approximately 74 percent of the refinery office forces were women.

The greatest employee concentration was found in the occupational classifications of stillmen's helpers No. 1; stillmen, other; and pumpmen. This was to be expected, since not only are these workers needed in appreciable numbers, but these occupations are common to practically all refineries. The smallest numbers of employees were found in the occupational classifications of compounders, chillermen, and wax operators. This was also to be expected. Compounder is a somewhat unusual occupational classification and is seldom found except in the largest refineries. Chillermen and wax operators are commonly found only where paraffin exists in the crude petroleum base stock; there is little paraffin to be found in southwestern crude oils.

The Southwest is generally regarded as being one of the less unionized sections of the United States. This generalization, however, does not appear strictly applicable to the petroleum-refining industry of this area. In the 117 companies scheduled, 28,491 employees (or 84 percent of the 33,923 workers employed) were working for companies having union agreements with their employees. Of the 28,491 employees in union companies, 15,026, or approximately 53 percent, were under agreements with unions affiliated with either the C. I. O. or the A. F. of L.,[7] whereas 13,465, or about 47 percent, were in companies having agreements with independent unions of various types.

As would be expected, the larger refineries of the Southwest were more highly unionized than the smaller establishments. Evidence of this may be seen in the fact that the 58 union plants surveyed contained 84 percent of the total refinery employment, whereas the 59 nonunion establishments employed only 16 percent of the total work-

[5] Because of the negligible number of women employees in plant occupations and because of their wide dispersion through so many plants, they have been excluded from the averages shown for plant occupations.

[6] See Monthly Labor Review, August 1943 (p. 197): Employment of Women in Petroleum Refineries.

[7] Affiliation was with the International Oil Workers Union, C. I. O., and the International Union of Operating Engineers, an A. F. of L. union.

ing force of refineries in the Southwest. Almost 91 percent of the refinery employees of Oklahoma were in companies having union agreements, whereas about 85 percent of Texas refinery employees and 78 percent of Louisiana employees were in union plants.

Average Hourly Earnings, April 1943

Indicative of the high level of wages prevailing in the petroleum-refining industry is the fact that, of the 10,583 workers studied, who constitute 40 percent of plant refinery employees in these operations, only about 14 percent received less than 95 cents an hour (table 1). On the other hand, approximately 55 percent received more than $1.15 an hour, and 22 percent received more than $1.25 an hour. Thirty percent of the plant employees surveyed were grouped in the wage range from $1.15 to $1.30 an hour and 50 percent in the range from $1.15 to $1.40 an hour. These rates, in comparison with other data accumulated from comprehensive Bureau of Labor Statistics wage surveys in the Southwest, indicate that the level of wages prevailing in the petroleum-refining industry is substantially higher than that in the majority of other industries in this area.

TABLE 1.—*Distribution of Male Employees in Selected Occupations in Petroleum Refineries in the Southwest, by Plant Average Hourly Earnings,*[1] *April 1943*

Occupation and class	Number of plants	Total workers		Average hourly earnings	Number of workers in plants where hourly earnings averaged—				
		Number of workers	Percent		Under $0.80	$0.80 and under $0.85	$0.85 and under $0.90	$0.90 and under $0.95	$0.95 and under $1.00
All workers:									
Number	.....	10,583	.....	.....	723	196	245	365	599
Percent	.....	.....	100.0	.....	6.8	1.9	2.3	3.4	5.7
Carpenters, class A	26	124	1.2	$1.32	.....	.....	.....	.....	2
Carpenters, class B	16	58	.5	1.15	.....	1	3	.....	.....
Centrifuge operators	11	75	.7	1.27	.....	.....	.....	.....	.....
Chillermen	11	50	.5	1.23	.....	.....	.....	5	.....
Compounders	17	57	.5	1.21	1	.....	1	.....	2
Electricians, class A	44	221	2.1	1.37	.....	.....	.....	1	2
Electricians, class B	28	102	1.0	1.18	1	.....	2	1	.....
Filtermen	15	93	.9	1.19	.....	4	.....	5	.....
Firemen, stills	50	536	5.1	1.13	23	.....	10	8	31
Guards	42	463	4.4	.93	76	4	39	22	114
Janitors	49	183	1.7	.78	76	38	1	66	2
Machinists, class A	50	460	4.3	1.36	.....	.....	.....	.....	2
Machinists, class B	36	251	2.4	1.18	2	.....	.....	6	.....
Packers, hand or machine	14	90	.8	.90	15	5	25	5	12
Pipefitters, class A	49	319	3.0	1.32	.....	.....	1	.....	6
Pipefitters, class B	38	307	2.9	1.15	12	4	4	13	5
Pressmen, paraffin	12	122	1.2	1.11	.....	16	.....	8	12
Pumpmen	80	858	8.1	1.22	39	19	22	21	11
Pumpmen helpers	29	471	4.5	1.15	22	4	1	3	19
Routine testers, laboratory	77	681	6.4	1.07	52	18	11	52	76
Stillmen, cracking	65	463	4.4	1.36	2	.....	.....	10	11
Stillmen, other	93	712	6.7	1.25	66	15	12	16	21
Stillmen's helpers No. 1	66	988	9.3	1.19	28	21	6	9	19
Stillmen's helpers No. 2	41	416	3.9	1.13	35	4	5	20	16
Stock clerks	46	125	1.2	.98	28	10	16	2	5
Treaters	77	393	3.7	1.24	15	7	12	10	3
Treaters' helpers	34	313	3.0	1.17	15	.....	2	30	7
Truck drivers:									
Under 2½ tons	48	227	2.1	.90	48	1	43	10	20
2½ tons and over	34	198	1.9	.92	47	6	3	7	8
Watchmen	38	481	4.5	.93	106	14	25	29	175
Wax operators	9	45	.4	1.17	.....	.....	.....	.....	.....
Welders, hand (gas and arc), class A	62	460	4.3	1.34	.....	.....	.....	2	.....
Welders, hand (gas and arc), class B	36	155	1.5	1.09	6	5	.....	4	11
Working foremen, processing departments	31	92	.9	1.26	8	.....	1	.....	7

[1] Exclusive of premium payments for overtime and night-shift work.

TABLE 1.—*Distribution of Male Employees in Selected Occupations in Petroleum Refineries in the Southwest, by Plant Average Hourly Earnings, April 1943.*—Con.

Occupation and class	Number of workers in plants where hourly earnings averaged—								
	$1.00 and under $1.05	$1.05 and under $1.10	$1.10 and under $1.15	$1.15 and under $1.20	$1.20 and under $1.25	$1.25 and under $1.30	$1.30 and under $1.35	$1.35 and under $1.40	$1.40 and over
All workers:									
Number	625	738	471	858	1,724	631	1,233	824	1,33
Percent	5.9	7.0	4.5	8.1	16.3	6.0	11.6	7.8	12.7
Carpenters, class A		5		16	1	14	7	37	4
Carpenters, class B	4	1	2	40	4	1	2		
Centrifuge operators	4	13			4	4	32		1
Chillermen		8			17			15	5
Compounders	3	3	17	1	7	1	3	11	7
Electricians, class A	1	3	4	7	2	17	30	33	12
Electricians, class B	12	1	1	19	40	11	14		
Filtermen	9		11	4	17	15	21	7	
Firemen, stills	22	17	48	108	257	9		3	
Guards	107	101							
Janitors									
Machinists, class A	4	1	2	16	11	25	64	178	16
Machinists, class B	11	4	6	73	149				
Packers, hand or machine	3	25							
Pipefitters, class A	3	5	8	27	9	43	52	91	7
Pipefitters, class B	5	3	39	32	161	29			
Pressmen, paraffin	15		5	4	34		28		
Pumpmen	50	35	32	23	22	39	378	120	4
Pumpmen helpers	11	14	41	230	76	50			
Routine testers, laboratory	20	116	47	4	279		1	5	
Stillmen, cracking	15	11	23	18	22	4	64	29	25
Stillmen, other	19	8	30	26	75	40	15	54	31
Stillmen's helpers No. 1	27	122	36	67	183	263	183		3
Stillmen's helpers No. 2	5	21	25	50	101		120	8	
Stock clerks	11	13	6	5	2	2	23		2
Treaters	44	10	7	42	19	24	10	95	9
Treaters' helpers	3	17	12	3	93	29	102		
Truck drivers:									
Under 2½ tons	64	8	32					1	
2½ tons and over	74	30	23						
Watchmen	43	89							
Wax operators	7		9	1	20		8		
Welders, hand (gas and arc), class A	5	6	4	17	66	9	76	136	13
Welders, hand (gas and arc), class B	22	32	1	21	51	2			
Working foremen, processing departments	2	16		4	2			1	3

OCCUPATIONAL DIFFERENCES

The averages for individual occupations ranged from 78 cents an hour for janitors to $1.37 for class A electricians. Of the 34 occupational groups studied, only 7 showed average earnings below $1.00 per hour; approximately 17 percent of the workers covered were classified in these groups. At the other end of the distribution were 9 occupational groups, which included more than a fourth (28 percent) of the workers, with averages of $1.25 or more per hour. A little more than half the workers in these higher-paid groups were doing maintenance work; included were class A carpenters, electricians, machinists, pipefitters, and hand welders.

Substantial interplant variations in wage rates are apparent in the ranges shown in table 2. These ranges reflect differences in location, size and type of operation, unionization, and other plant characteristics which are frequently associated with variations in wage levels. These factors are discussed in greater detail below. It should be noted that the lowest and highest averages shown in table 2 are plant averages and do not necessarily reflect the full range of the earnings of individual workers.

TABLE 2.—*Average Hourly Earnings*[1] *of Male Workers in Selected Occupations in Petroleum Refineries in the Southwest, April 1943*

Occupation and class	Number of plants	Number of workers	Hourly earnings		
			General average	Lowest plant average	Highest plant average
Carpenters, class A	26	124	$1.32	$0.95	$1.44
Carpenters, class B	16	58	1.15	.80	1.30
Centrifuge operators	11	75	1.27	1.03	1.42
Chillermen	11	50	1.23	.94	1.42
Compounders	17	57	1.21	.78	1.43
Electricians, class A	44	221	1.37	.94	1.50
Electricians, class B	28	102	1.18	.76	1.32
Fillermen	15	93	1.19	.80	1.36
Firemen, stills	50	536	1.13	.58	1.35
Guards	42	463	.93	.33	1.08
Janitors	49	183	.78	.30	.95
Machinists, class A	50	460	1.36	.95	1.50
Machinists, class B	36	251	1.18	.75	1.24
Packers, hand or machine	14	90	.90	.45	1.08
Pipefitters, class A	49	319	1.32	.89	1.50
Pipefitters, class B	38	307	1.15	.40	1.29
Pressmen, paraffin	12	122	1.11	.81	1.30
Pumpmen	80	858	1.22	.44	1.45
Pumpmen helpers	29	471	1.15	.45	1.28
Routine testers, laboratory	77	681	1.07	.40	1.37
Stillmen, cracking	65	463	1.36	.74	1.55
Stillmen, other	93	712	1.25	.46	1.60
Stillmen's helpers No. 1	66	988	1.19	.40	1.51
Stillmen's helpers No. 2	41	410	1.13	.35	1.38
Stock clerks	46	125	.98	.47	1.71
Treaters	77	393	1.24	.50	1.56
Treaters' helpers	34	313	1.17	.40	1.34
Truck drivers, under 2½ tons	48	227	.90	.36	1.39
Truck drivers, 2½ tons and over	34	198	.92	.35	1.14
Watchmen	38	481	.93	.34	1.08
Wax operators	9	45	1.17	1.00	1.30
Welders, hand (gas and arc), class A	62	460	1.34	.90	1.50
Welders, hand (gas and arc), class B	36	155	1.09	.49	1.26
Working foremen, processing departments	31	92	1.26	.67	1.73

[1] Exclusive of premium payments for overtime and night-shift work.

REGIONAL DIFFERENCES

The average straight-time earnings of plant employees in the 117 petroleum refineries included in the survey amounted to $1.16 in April 1943. Further analysis discloses significant regional variations in hourly earnings in the industry. On a State-wide basis, wage earners in Texas and Louisiana showed an average of $1.18 an hour for the occupations covered as compared with $1.05 an hour in Oklahoma. More detailed computations show that the highest average hourly earnings ($1.24) were paid in the Gulf Coast area of Texas, whereas the lowest average earnings ($1.00) were found in the inland Texas area. Refinery workers in the Louisiana Gulf Coast area received average wages of $1.22 an hour, those in northern Louisiana $1.06, and those in Oklahoma $1.05 an hour.

	Average hourly earnings[1]
Southwest	$1.16
Oklahoma	1.05
Louisiana	1.18
Northern Louisiana	1.06
Gulf Coast	1.22
Texas	1.18
Inland	1.00
Gulf Coast	1.24

[1] Regional and State averages computed by using constant employee weights, as shown in table 1. This method of weighting prevents distortion of area averages by differences in occupational structure. All data are exclusive of premiums for overtime and night-shift work.

In Texas, average earnings ranged from 79 cents an hour for janitors to $1.38 for cracking stillmen and class A electricians (table 3); in Oklahoma, earnings were lowest for watchmen at 78 cents an hour and highest for working foremen in the processing departments with $1.39 (table 4); the range of earnings in Louisiana was from 64 cents an hour for janitors to $1.70 an hour for working foremen (table 5). Thus both the lowest and highest occupational average hourly earnings were found in Louisiana.

In Texas, 6 occupational classifications showed averages below $1.00; in contrast with Oklahoma where average hourly earnings were less than $1.00 in 13 cases, and Louisiana where only 4 classifications received less than that amount. In Texas, 13 occupational groups received $1.25 or more an hour; in Louisiana 9, and in Oklahoma only 2, were in this class. In general, this is indicative of the wage levels of the respective areas.

To a considerable extent, these differences reflect industrial rather than geographical variations. Differences in size of plant and in technological processes are important in this connection.

TABLE 3.—*Average Hourly Earnings,[1] of Male Workers in Selected Occupations in Texas Petroleum Refineries, April 1943*

Occupation and class	State				
	Number of plants	Number of workers	Hourly earnings		
			General average	Lowest plant average	Highest plant average
Carpenters, class A	16	56	$1.33	$0.95	$1.46
Carpenters, class B	10	15	1.14	.80	1.30
Centrifuge operators	4	32	1.28	1.07	1.32
Chillermen	5	20	1.33	1.22	1.37
Compounders	7	29	1.30	.78	1.40
Electricians, class A	25	146	1.38	.94	1.50
Electricians, class B	18	78	1.18	.86	1.35
Filtermen	6	43	1.25	.92	1.35
Firemen, stills	28	355	1.16	.58	1.35
Guards	25	372	.94	.33	1.06
Janitors	32	142	.79	.30	.95
Machinists, class A	28	336	1.36	.95	1.50
Machinists, class B	22	170	1.20	.75	1.34
Packers, hand or machine	8	51	.89	.45	1.06
Pipefitters, class A	29	233	1.36	.96	1.50
Pipefitters, class B	24	219	1.17	.40	1.30
Pressmen, paraffin	5	77	1.14	.81	1.30
Pumpmen	50	647	1.25	.44	1.46
Pumpmen helpers	22	391	1.15	.45	1.28
Routine testers, laboratory	48	420	1.08	.48	1.27
Stillmen, cracking	38	270	1.40	.74	1.55
Stillmen, other	59	428	1.24	.47	1.40
Stillmen's helpers No. 1	45	767	1.20	.40	1.51
Stillmen's helpers No. 2	27	290	1.16	.35	1.33
Stock clerks	27	82	1.02	.47	1.36
Treaters	48	267	1.29	.50	1.46
Treaters' helpers	23	243	1.22	.46	1.34
Truck drivers, under 2½ tons	29	163	.94	.40	1.30
Truck drivers, 2½ tons and over	21	155	.93	.35	1.12
Watchmen	22	325	.97	.50	1.06
Wax operators	4	19	1.23	1.12	1.30
Welders, hand (gas and arc), class A	37	283	1.36	.90	1.50
Welders, hand (gas and arc), class B	21	89	1.10	.49	1.22
Working foremen, processing depts	24	61	1.18	.67	1.73

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings [1] of Male Workers in Selected Occupations in Texas Petroleum Refineries, April 1943*—Continued

Occupation and class	Inland [2]			Gulf Coast [2]		
	Hourly earnings			Hourly earnings		
	General average	Lowest plant average	Highest plant average	General average	Lowest plant average	Highest plant average
Carpenters, class A	$1.18	$0.95	$1.34	$1.38	$1.32	$1.44
Carpenters, class B	1.07	.80	1.25	1.18	.88	1.30
Centrifuge operators	(3)	(3)	(3)	1.31	1.30	1.32
Chillermen				1.33	1.22	1.37
Compounders	(3)	(3)	(3)	1.31	.78	1.42
Electricians, class A	1.19	.97	1.34	1.40	.94	1.50
Electricians, class B	1.09	.90	1.25	1.20	.86	1.25
Filtermen	(3)	(3)	(3)	1.29	1.20	1.36
Firemen, stills	1.01	.58	1.35	1.19	.60	1.26
Guards	.86	.50	1.03	.97	.33	1.08
Janitors	.60	.30	.78	.84	.44	.93
Machinists, class A	1.23	.95	1.34	1.38	1.20	1.50
Machinists, class B	1.05	.75	1.17	1.22	1.20	1.24
Packers, hand or machine	.72	.45	1.02	(3)	(3)	(3)
Pipefitters, class A	1.19	.97	1.44	1.39	.96	1.50
Pipefitters, class B	.89	.40	1.17	1.22	.88	1.29
Pressmen, paraffin	(3)	(3)	(3)	1.15	.84	1.30
Pumpmen	1.01	.44	1.30	1.31	.67	1.45
Pumpmen helpers	.83	.45	1.12	1.18	.95	1.28
Routine testers, laboratory	.92	.48	1.10	1.14	.66	1.37
Stillmen, cracking	1.28	.96	1.51	1.48	.74	1.55
Stillmen, other	1.04	.48	1.60	1.35	.47	1.53
Stillmen's helpers, No. 1	1.03	.40	1.30	1.26	.63	1.51
Stillmen's helpers No. 2	.99	.35	1.20	1.23	.37	1.38
Stock clerks	.90	.47	1.29	1.06	.52	1.56
Treaters	1.08	.56	1.32	1.38	.50	1.56
Treaters' helpers	.97	.65	1.32	1.25	.46	1.34
Truck drivers, under 2½ tons	.79	.40	1.39	1.01	.44	1.14
Truck drivers, 2½ tons and over	.58	.35	.96	1.04	.68	1.12
Watchmen	.85	.50	.96	.99	.50	1.08
Wax operators	(3)	(3)	(3)	1.26	1.22	1.30
Welders, hand (gas and arc), class A	1.23	.90	1.38	1.37	.94	1.50
Welders, hand (gas and arc), class B	.97	.49	1.17	1.18	.72	1.22
Working foremen, processing depts	1.13	.74	1.73	1.24	.67	1.51

[1] Exclusive of premium payments for overtime and night-shift work.

[2] For reasons of economy of printing space, columns showing number of plants and number of workers have been deleted from this section; they are, however, available in mimeographed form for persons desiring this information.

[3] Number of plants and/or workers too small to justify presentation of an average.

TABLE 4.—*Average Hourly Earnings*[1] *of Male Workers in Selected Occupations in Oklahoma Petroleum Refineries, April 1943*

Occupation and class	Number of plants	Number of workers	Hourly earnings		
			General average	Lowest plant average	Highest plant average
Carpenters, class A	5	21	$1.19	$1.05	$1.3
Carpenters, class B	3	3	.94	.88	1.0
Centrifuge operators	6	25	1.15	1.03	1.3
Chillermen	5	26	1.15	.94	1.4
Compounders	7	24	1.09	.96	1.3
Electricians, class A	11	27	1.26	1.08	1.4
Electricians, class B	7	8	.98	.76	1.1
Filtermen	7	36	1.15	1.00	1.3
Firemen, stills	15	108	1.04	.72	1.1
Guards	11	48	.88	.59	1.0
Janitors	11	27	.80	.50	.9
Machinists, class A	15	35	1.21	1.00	1.3
Machinists, class B	11	35	1.10	.75	1.3
Packers, hand or machine	5	38	.90	.72	.9
Pipefitters, class A	12	52	1.17	.89	1.3
Pipefitters, class B	6	63	1.12	.94	1.3
Pressmen, paraffin	6	37	1.01	.92	1.1
Pumpmen	18	105	1.05	.67	1.2
Pumpmen helpers	4	19	.95	.68	1.0
Routine testers, laboratory	17	120	.98	.61	1.3
Stillmen, cracking	20	113	1.21	.92	1.4
Stillmen, other	20	134	1.16	.70	1.4
Stillmen's helpers No. 1	15	128	1.08	.60	1.2
Stillmen's helpers No. 2	10	61	.97	.72	1.1
Stock clerks	14	35	.88	.63	1.1
Treaters	21	81	1.08	.76	1.2
Treater's helpers	7	36	.94	.69	1.0
Truck drivers, under 2½ tons	13	47	.83	.61	1.0
Truck drivers, 2½ tons and over	12	40	.88	.50	1.1
Watchmen	11	104	.78	.50	.9
Wax operators	5	26	1.13	1.00	1.2
Welders, hand (gas and arc), class A	19	97	1.22	1.00	1.4
Welders, hand (gas and arc), class B	12	63	1.08	.80	1.2
Working foremen, processing depts	4	28	1.39	.99	1.4

[1] Exclusive of premium payments for overtime and night-shift work.

TABLE 5.—*Average Hourly Earnings,*[1] *of Male Workers in Selected Occupations in Louisiana Petroleum Refineries, April 1943*

Occupation and class	State				
	Number of plants	Number of workers	Hourly earnings		
			General average	Lowest plant average	Highest plant average
Carpenters, class A	5	47	$1.38	$1.24	$1.40
Carpenters, class B	3	40	1.17	1.00	1.18
Compounders	3	4	1.22	.87	1.43
Electricians, class A	8	48	1.41	1.15	1.44
Electricians, class B	3	16	1.29	1.00	1.32
Firemen, stills	7	73	1.14	.90	1.23
Guards	6	43	.89	.53	.95
Janitors	6	14	.64	.37	.80
Machinists, class A	7	89	1.40	1.00	1.42
Machinists, class B	3	46	1.18	1.00	1.18
Pipefitters, class A	8	34	1.29	1.18	1.40
Pipefitters, class B	8	25	1.00	.65	1.26
Pumpmen	12	106	1.18	.60	1.44
Pumpmen helpers	3	61	1.20	.99	1.26
Routine testers, laboratory	12	141	1.13	.40	1.23
Stillmen, cracking	7	80	1.43	1.00	1.50
Stillmen, other	14	150	1.36	.46	1.50
Stillmen's helpers No. 1	6	93	1.23	.81	1.29
Stillmen's helpers No. 2	4	59	1.15	.60	1.22
Stock clerks	5	8	1.04	.81	1.24
Treaters	8	45	1.23	.80	1.49
Treaters' helpers	4	34	1.06	.40	1.29
Truck drivers, under 2½ tons	6	17	.67	.36	.96
Watchmen	5	52	.94	.34	1.04
Welders, hand (gas and arc), class A	6	80	1.41	1.10	1.44
Welders, hand (gas and arc), class B	3	3	1.14	1.00	1.25
Working foremen, processing depts.	3	3	1.70	1.67	1.73

Occupation and class	North Louisiana[2]			Gulf Coast[2]		
	Hourly earnings			Hourly earnings		
	General average	Lowest plant average	Highest plant average	General average	Lowest plant average	Highest plant average
Carpenters, class A	(3)	(3)	(3)	$1.38	$1.26	$1.40
Carpenters, class B	(3)	(3)	(3)	1.17	(3)	(3)
Compounders	(3)	(3)	(3)	1.34	(3)	(3)
Electricians, class A	1.29	1.24	1.33	1.42	1.15	1.44
Electricians, class B				1.29	1.00	1.32
Firemen, stills	(3)	(3)	(3)	1.16	.90	1.20
Guards	.81	.53	.91	.93	.65	.95
Janitors	.50	.37	.60	.75	.45	.80
Machinists, class A	1.25	1.00	1.33	1.41	1.25	1.42
Machinists, class B	(3)	(3)	(3)	(3)	(3)	(3)
Pipefitters, class A	1.31	1.24	1.33	1.29	1.18	1.40
Pipefitters, class B	(3)	(3)	(3)	.98	.65	1.26
Pumpmen	1.02	.70	1.23	1.22	.60	1.44
Pumpmen helpers	(3)	(3)	(3)	(3)	(3)	(3)
Routine testers, laboratory	.94	.71	1.21	1.16	.40	1.23
Stillmen, cracking	1.40	1.33	1.45	1.44	1.00	1.50
Stillmen, other	1.12	.80	1.33	1.43	.46	1.50
Stillmen's helpers No. 1	1.07	.81	1.17	1.28	1.27	1.29
Stillmen's helpers No. 2	(3)	(3)	(3)	1.17	.60	1.22
Stock clerks	(3)	(3)	(3)	1.05	.81	1.24
Treaters	1.15	.89	1.23	1.31	.80	1.49
Treaters' helpers	(3)	(3)	(3)	1.09	.40	1.29
Truck drivers, under 2½ tons	(3)	(3)	(3)	.72	.36	.96
Watchmen	(3)	(3)	(3)	.96	.34	1.04
Welders, hand (gas and arc), class A	1.23	1.10	1.33	1.42	(3)	(3)
Welders, hand (gas and arc), class B	(3)	(3)	(3)	(3)	(3)	(3)
Working foremen, processing depts.	(3)	(3)	(3)	(3)	(3)	(3)

[1] Exclusive of premium payments for overtime and night-shift work.
[2] For reasons of economy of printing space, columns showing number of plants and number of workers have been deleted from this section; they are, however, available in mimeographed form for persons desiring this information.
[3] Number of plants and/or workers too small to justify presentation of an average.

WAGE VARIATIONS BY SIZE OF PLANT

Of the 22 occupational groups analyzed in table 6, average earnings in the smallest plants were well below those in both groups of larger operations for 21 occupations; the single exception was the packers. In the comparison between the plants with 51 to 250 employees and those with more than 250 workers, the same type of relationship is apparent. For each of the 34 occupational groups, average earnings in the middle-size plants were below those for the largest establishments. As might be expected, the differences in some cases were less pronounced than those between the largest and smallest plants.

TABLE 6.—*Average Hourly Earnings*[1] *of Male Workers in Selected Occupations in Petroleum Refineries in the Southwest, by Size of Plant, April 1943*

Occupation and class	Small plants (9–50 employees)		Medium-sized plants (51–250 employees)		Large plants (251 or more employees)	
	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings
Carpenters, class A	(2)	(2)	20	$1.25	103	$1.34
Carpenters, class B	(2)	(2)	6	1.00	51	1.17
Centrifuge operators			8	1.06	67	1.30
Chillermen			5	.94	45	1.26
Compounders	(2)	(2)	4	1.08	52	1.22
Electricians, class A	(2)	(2)	30	1.22	190	1.40
Electricians, class B	(2)	(2)	16	1.06	85	1.21
Filtermen			14	.93	79	1.23
Firemen, stills	19	$0.79	141	1.05	376	1.18
Guards	12	.60	150	.80	301	1.01
Janitors	13	.41	46	.69	124	.86
Machinists, class A	(2)	(2)	48	1.26	409	1.37
Machinists, class B	(2)	(2)	28	1.06	220	1.20
Packers, hand or machine	7	.80	20	.69	63	.97
Pipefitters, class A	4	1.20	61	1.22	254	1.35
Pipefitters, class B	12	.70	46	.97	249	1.20
Pressmen, paraffin			8	.99	114	1.12
Pumpmen	60	.75	202	1.11	596	1.30
Pumpmen helpers	12	.73	58	.95	401	1.19
Routine testers, laboratory	22	.84	179	.93	480	1.14
Stillmen, cracking	39	1.08	157	1.29	267	1.44
Stillmen, other	157	.89	130	1.18	425	1.41
Stillmen's helpers No. 1	57	.74	139	1.12	792	1.25
Stillmen's helpers No. 2	26	.49	123	1.06	261	1.22
Stock clerks	17	.59	43	.92	65	1.13
Treaters	32	.85	126	1.12	235	1.36
Treaters' helpers	8	.78	49	.95	256	1.25
Truck drivers, under 2½ tons	38	.50	53	.90	136	1.01
Truck drivers, 2½ tons and over	30	.50	37	.83	131	1.04
Watchmen	16	.56	101	.83	364	.97
Wax operators			14	1.16	31	1.19
Welders, hand (gas and arc), class A	7	1.15	64	1.27	389	1.35
Welders, hand (gas and arc), class B	9	.79	32	.99	114	1.14
Working foremen, processing departments	17	.99	37	1.20	38	1.45

[1] Exclusive of premium payments for overtime and night-shift work.
[2] Number of workers too small to justify presentation of an average.

OTHER FACTORS INFLUENCING WAGE LEVELS

Wide differences also appear in the comparison of earnings in refineries with cracking units and those operating with simpler processes. With the single exception of class B machinists, average earnings in the cracking plants are significantly above those for the other operations in the 26 occupational groups for which data are shown in table 7. It is thus apparent that the predominance of large refinery units and/or cracking processes within an area would consequently result in higher wage levels than those found in an area where such

influences were less in evidence. For example, the presence of large plants equipped for cracking, in the Gulf Coast areas of Louisiana and Texas, is principally responsible for higher wage rates there than in the inland areas of these States.

TABLE 7.—*Average Hourly Earnings*[1] *of Male Workers in Selected Occupations in Refineries with Cracking Units and in Other Refineries in the Southwest, April 1943*

Occupation and class	Refineries possessing cracking units		Other refineries	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Carpenters, class A	120	$1.33	4	$1.29
Carpenters, class B	52	1.16	6	1.08
Centrifuge operators	75	1.27		
Chillermen	50	1.23		
Compounders	55	1.21	(2)	(2)
Electricians, class A	216	1.37	5	1.20
Electricians, class B	101	1.18	(2)	(2)
Filtermen	89	1.20	4	.80
Firemen, stills	518	1.15	18	.78
Guards	447	.94	16	.64
Janitors	171	.81	12	.45
Machinists, class A	451	1.36	9	1.29
Machinists, class B	247	1.18	4	1.22
Packers, hand or machine	88	.90	(2)	(2)
Pipefitters, class A	311	1.33	8	1.29
Pipefitters, class B	291	1.17	16	.79
Pressmen, paraffin	122	1.11		
Pumpmen	798	1.25	60	.85
Pumpmen helpers	452	1.15	19	.91
Routine testers, laboratory	634	1.09	47	.91
Stillmen, cracking	463	1.36		
Stillmen, other	561	1.34	151	.91
Stillmen's helpers No. 1	947	1.21	41	.76
Stillmen's helpers No. 2	388	1.16	22	.60
Stock clerks	106	1.02	19	.73
Treaters	367	1.27	26	.81
Treaters' helpers	304	1.19	9	.62
Truck drivers, under 2½ tons	188	.97	39	.57
Truck drivers, 2½ tons and over	182	.95	16	.60
Watchmen	465	.93	16	.62
Wax operators	45	1.18		
Welders, hand (gas and arc), class A	446	1.34	14	1.28
Welders, hand (gas and arc), class B	150	1.10	5	.84
Working foremen, processing departments	79	1.27	13	1.20

[1] Exclusive of premium payments for overtime and night-shift work.
[2] Number of workers too small to justify presentation of an average.

Local labor-market conditions and unionization have also contributed to area wage differentials. Union plants in general pay higher wages than do nonunion establishments. Consequently, the degree of plant unionization within an area would affect the level of wages.

It is exceedingly difficult to estimate the influence of local labor-market conditions. Critical manpower shortages in certain areas have doubtless affected wage rates, but, on the other hand, the wage-stabilization program has presumably operated as a counteracting influence. From evidence available in Bureau of Labor Statistics files, it appears that area wage differences in petroleum refining are primarily the result of size of establishment and the processing technique utilized, and only secondarily the result of differences in unionization, local labor conditions, and other industrial characteristics.

Hourly Earnings in Private Ship-Repair Yards, Spring of 1943[1]

Summary

FOR the country as a whole, the average hourly straight-time earnings of workers in ship-repair yards amounted to $1.062 in May 1943. This average is based on a study, by the Bureau of Labor Statistics, of the earnings of workers in 60 representative occupations employing approximately 90 percent of all first-shift workers. Among the four broad regions in which ship-repair operations are carried on, earnings varied from 92.3 cents on the Gulf Coast to $1.259 on the Pacific Coast. The averages for the Great Lakes and Atlantic Coast regions were $1.112 and $1.032 an hour, respectively.

In all regions first-class skilled mechanics generally received the minimum rates established by the regional agreements. The rates for such workers were $1.20 in the Atlantic, Gulf, and Great Lakes regions and $1.34 in the Pacific Coast region. Much wider variations are found, by regions, in the earnings of the other workers.

Earnings were 11.4 cents higher in May 1943 than in the spring of 1942. (See footnote 1, table 5, p. 156.) Regional increases ranged from 9.3 cents in the Pacific Coast region to 12.7 cents in the Gulf Coast region. The increases for the Atlantic Coast and Great Lakes regions amounted to 11.8 and 9.9 cents an hour, respectively.

The increase in earnings between 1942 and 1943 is very largely attributable to wage adjustments made during the summer of 1942 under the regional wage agreements of that year. These agreements increased the rates in ship-repair yards by 8 cents an hour for Atlantic Coast and Great Lakes workers and by a sliding scale ranging from 9 cents for the lowest-paid workers to 13 cents for the highest-paid workers in the Gulf Coast region. Increases in the Pacific Coast region generally amounted to 9 cents an hour. The margin by which the actual increases in earnings exceeded the statutory increases was due primarily to the upgrading of workers between the spring of 1942 and 1943.

Ship Repair in Wartime

Ship-repair work plays a vital part in our war economy. From a small peacetime industry, engaged very largely in the servicing, reconditioning, and repairing of privately owned commercial ships, this industry has increased greatly in size since the outbreak of World War II, from the standpoint of both the number of yards and the number of workers. It is estimated that the number of workers now engaged in ship-repair work is more than 6 times as great as it was at the start of the war.

The great increase in ship-repair work in the last few years is due largely to the tremendous increase that has occurred in ship construction, the hazardous nature of shipping in wartime, the increased tempo at which vessels are operated at present, and the shifting from Government-operated to private repair yards of much of the repair work on naval vessels.

[1] Prepared in the Bureau's Division of Wage Analysis by Willis C. Quant under the direction of Victor S. Baril.

Repair work in private yards is largely performed in yards operated by a few large companies. These companies operate a number of widely scattered yards. The many small, independent yards which have entered the repair field in recent years account for but a comparatively small proportion of all repair work. Some repair work is done in yards primarily engaged in new construction.

Ship-repair work varies greatly from ship to ship and consequently does not lend itself to the mass-production techniques employed in the construction yards. Repair work may involve only minor repairs on the hull, deck, or engines of a ship, or it may consist of such major tasks as the rebuilding of large sections of the hull or deck or of the general overhauling or replacing of the ship's engines.

Scope and Method of Study

The present comprehensive study of wages in ship-repair yards was undertaken by the Bureau of Labor Statistics as a part of its established program of securing basic information on the wage structure of American industries. The information obtained is designed to serve the needs of Government agencies charged with the responsibility of developing the shipbuilding program and stabilizing wages in the industry. A previous survey of wages paid to workers in ship-repair yards, was made by the Bureau during the spring of 1942 in conjunction with a study of wages in ship-construction yards, in advance of the National Shipbuilding Conference held in May of that year; it therefore did not reflect the broad wage adjustments which resulted from that conference.[2] The present survey, which was made in May 1943, provides a basis for appraising the wage levels resulting from the 1942 conference.

The current study was limited to privately operated yards engaged wholly or primarily in the repair of ships. Altogether 34 yards were surveyed. In selecting the yards to be studied, such factors as size of yard, geographical location, and corporate affiliation were given full consideration. Because of their geographical location and strategic importance in the industry it was necessary to include in the sample proportionately more large yards than small yards. In all such cases, however, only an appropriate proportion of the workers in the various occupations was used, so that the large yards would not unduly influence the averages shown. The findings presented in this article are believed to be representative of the entire industry.

The wage data presented in this report were taken from pay rolls for a period ending about May 15, 1943. Full utilization was made of the pay-roll data submitted semiannually to the Secretary of Labor under the Copeland Act. These data were supplemented, whenever necessary, by information obtained at the yards by experienced Bureau representatives.

Information was obtained only for first-shift (day) workers,[3] whose earnings are not affected by premium pay for late-shift work. For all time workers covered, the wage data represent hourly rates. The data for incentive workers include average bonus payments per hour of

[2] For the results of this study, see the Monthly Labor Review for August 1942 (p. 298) and October 1942 (p. 810).

[3] In a few instances, workers found in important occupations represented only on the second or third shifts were included in the study. In such cases, however, extra earnings resulting from shift-differential payments were eliminated.

work, but exclude all premium payments for overtime work. The survey was limited to 60 occupations, selected because of their numerical importance or because they were key jobs. These occupations accounted for approximately 90 percent of all first-shift workers in the yards surveyed.

Definition of Regions

The ship-repair industry, like the ship-construction industry, is widely scattered along the three coasts and the inland waterways of the country. Because of regional variations in the level of wages, it is appropriate that the data obtained be presented on a regional rather than an industry-wide basis. For purposes of this study, the regions used are those established for the shipbuilding industry by the Shipbuilding Stabilization Committee (sponsor of the shipbuilding wage-stabilization program), namely, the Atlantic, Pacific, and Gulf Coasts, and the Great Lakes. No significant amount of ship-repair work is carried on elsewhere in the United States.

The areas covered by these four regions are as follows: The Atlantic Coast region includes the tidewater ports along the eastern coast of the United States from the eastern tip of Maine to the northern border of Florida; the Gulf Coast region embraces all ports along the eastern coast of Florida and on the Gulf of Mexico; the Pacific Coast region is made up of the tidewater ports of the western part of the United States; and the Great Lakes region includes the American lake ports on Lakes Superior, Michigan, Huron, Ontario, and Erie.[4]

Labor Force

Ship-repair work requires a high degree of skill. Proportionately more skilled workers are found in repair yards than in construction yards. The work is both arduous and hazardous and is generally performed by men. Because of the dearth of skilled workers, ship-repair yards have found it necessary to inaugurate extensive training programs in order to fill their labor requirements. In most instances these training programs are of an informal nature.

In ship-repair yards, as in construction yards, various grades or classes of workers are found in most occupations. Although the number of grades and classes varies among the individual yards and regions, many occupations include specialists, first-class workers, second-class workers, third-class workers, handymen, and helpers. First-class craftsmen and helpers are relatively comparable from yard to yard. Other craftsmen (i. e., second-class workers, third-class workers, and handymen) are not always comparable from yard to yard and, for this reason, workers in these three groups have been combined, for purposes of this study, into one broad group termed "other classes."

The proportion of all craftsmen (first-class and other classes, excluding helpers) to the total number of workers in the selected occupations studied varied from 41.9 percent in Gulf Coast yards to 63.0 percent in the Atlantic Coast yards (table 1). In the other two regions the relative number of all craftsmen closely approximated that

[4] A more detailed description of the areas covered by each of the four regions appeared in the Monthly Labor Review, August 1943 (p. 317): Earnings in Ship-Construction Yards.

in the Atlantic Coast region—59.7 percent in the Great Lakes and 58.3 on the Pacific Coast.

The proportion of first-class craftsmen, however, varies widely from region to region. Well over half of the first-shift workers in the Pacific Coast and Great Lakes regions, 57.3 and 55.9 percent, respectively, were first-class craftsmen. This compares with slightly over one-fourth (26.2 percent) of the workers in the Gulf Coast region and about one-third (32.8 percent) of the workers in the Atlantic Coast region. Even wider variations are found in the relative number of journeymen in classes below first class—from 1.0 percent in West Coast yards to 30.2 percent in Atlantic Coast yards.

TABLE 1.—*Percentage Distribution of Day-Shift Ship-Repair Workers, by Class of Worker and Region, Spring of 1942 and 1943*

Class of worker	Atlantic Coast		Gulf Coast		Pacific Coast		Great Lakes	
	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942
Craftsmen, first-class	32.8	32.6	26.2	25.0	57.3	59.7	55.9	38.3
Craftsmen, other classes	30.2	21.9	15.7	12.6	1.0	1.7	3.8	13.4
Helpers	17.9	21.3	25.2	31.5	24.1	26.1	12.0	19.0
Laborers	7.4	10.0	15.7	16.6	5.8	2.4	3.7	7.0
Apprentices and learners	2.1	1.7	5.9	3.9	.3	.3	4.9	1.1
Supervisors	6.2	5.8	7.9	6.5	7.7	5.9	12.4	7.7
Other workers	3.4	6.7	3.4	3.9	3.8	3.9	7.3	13.5
All workers studied	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Substantial variations among regions are also found in the relative number of journeymen's helpers, the second largest group of workers in ship-repair yards. The proportion of such workers to all craftsmen varied from 12.0 percent in the Great Lakes region to 25.2 percent in the Gulf Coast region.

Laborers and supervisory workers also account for a substantial proportion of the workers in ship-repair yards. The ratio of laborers to all workers varied from 3.7 percent in the Great Lakes region to 15.7 percent in the Gulf Coast region, while that of supervisors to all workers ranged from 6.2 percent in the Atlantic Coast region to 12.4 percent in the Great Lakes region.

In general, the composition of the labor force in ship-repair yards had not changed materially since the spring of 1942. The greatest change, as may be seen from the figures presented in table 1, occurred in the Great Lakes region, where the relative number of first-class craftsmen increased from 38.3 percent in 1942 to 55.9 percent in 1943, and the relative number of craftsmen below first-class declined from 13.4 to 3.8 percent. Upgrading of workers together with a fuller adherence to the stabilization program accounts, in a large part, for this change. Other significant changes were an increase of 8.3 percentage points in the number of craftsmen below first-class in the Atlantic Coast region, and a decline of 7.0 points in the number of helpers in the Great Lakes area.

Wage Stabilization

The wage-stabilization program in the shipbuilding industry was sponsored (early in 1941) by the Shipbuilding Stabilization Committee

of the National Defense Advisory Commission, with the purpose of attaining greater uniformity in the rates of pay and providing for a systematic and periodic review of general wage levels in the industry. The program applied to both ship-repair and ship-construction operations in 3 regions—Atlantic, Gulf, and Great Lakes. In the Pacific Coast region, where the wage rates for ship-repair work were considerably higher than the rates for ship-construction work, the stabilization program applied only to ship-construction yards. Agreements[4] covering operations other than the West Coast repair yards were voluntarily entered into by representatives of both the shipbuilders and the labor organizations, and were approved by the Navy, the Maritime Commission, and the Office of Production Management. Wages in ship-repair yards in the Pacific Coast region were stabilized by special agreements entered into by representatives of labor and management. These agreements applied to all areas of the Pacific Coast region, except southern California, where workers in ship-repair yards were generally paid rates comparable to those paid to workers in ship-construction yards on the Pacific Coast. The Pacific Coast agreements for both ship-repair and ship-construction yards were the first to be adopted, and became effective on April 1, 1941. The effective dates for the other regional agreements were: Great Lakes, June 2; Atlantic Coast, June 23; and Gulf Coast, August 1, 1941.

All these agreements, except those pertaining to ship-repair operations on the Pacific Coast, included provisions covering basic rates of pay, overtime and shift-differential premiums, hours of work, standardization of shifts, prohibition of strikes and lockouts, restriction against limitation of production, machinery for settling disputes, apprenticeship training, periodic wage adjustments based on cost of living, and duration of the agreements. The Pacific Coast repair-yard agreements contained provisions covering basic rates of pay, overtime and shift-differential premiums, and hours of work.

Under the 1941 general stabilization agreements, basic minimum-wage rates for first-class skilled mechanics engaged in ship-repair work were set at $1.12 an hour in the Atlantic Coast and Great Lakes regions and at $1.07 in the Gulf Coast area. The repair-yard agreements for the Pacific Coast region provided for rates of pay ranging from 89 cents an hour for laborers to $2.41 an hour for senior marine engineers or naval architects, with additional premiums for leadmen and for those workers engaged in specific types of dirty work. The prevailing rate for first-class workers in most of the skilled crafts was $1.25 an hour. The wage provisions pertaining to ship-repair yards were generally similar to those for ship-construction yards, except in the Pacific Coast region.

The effective dates of the wage agreements, it will be recalled, varied from April 1 to August 1, 1941. Since living costs rose substantially and unevenly in the months following these effective dates, there was danger that the wage structure of the industry would be upset if regional cost-of-living adjustments were made at different times and on a differing basis. Consequently, a National Shipbuilding Conference, composed of representatives of the War Production Board, the Navy Department, the Maritime Commission, labor, and manage-

[4] For further details on these agreements see Monthly Labor Review for May 1941 (p. 1162) and October 1941 (p. 880).

ment, was held in May 1942 to consider methods of adjusting wages in all four regions. This conference, acting on an appeal from the President, agreed to delete from the zone agreements the provision for adjusting wages in proportion to changes in the cost of living. In place of cost-of-living increases, there was an agreement on certain specific wage levels. These levels involved wage increases which were generally lower than the workers would have obtained by application of the cost-of-living formula.[6] The new minimum rate for "first-class skilled mechanics" was set at $1.20 in both ship-construction and ship-repair yards in the Atlantic, Gulf Coast, and Great Lakes regions, and in ship-construction yards on the Pacific Coast. The rates for other than first-class workers were increased by 8 cents an hour except in the Gulf Coast region where a sliding scale, ranging from 9 cents for the lowest-paid workers to 13 cents for the highest-paid workers, was placed in effect.

Shortly after the meeting of the National Shipbuilding Conference, representatives of both labor organizations and operators of ship-repair yards in the Pacific Coast region met for the purpose of adjusting the wage-rate provisions contained in the special agreements adopted in 1941. Although the meeting was not held at the request of the Shipbuilding Stabilization Committee, that body did suggest to the representatives of both labor and management that they establish rates for ship-repair work more comparable to those paid for ship-construction work. The delegates did not concur, however, in this suggestion and instead established rates for workers in ship-repair yards on the Pacific Coast at a level 11.6 percent higher than the revised rates for ship-construction workers in that region, thereby affording workers in ship-repair yards about the same percentage increase as those in construction yards. In general, the increases for ship-repair workers in Pacific Coast yards amounted to 9 cents an hour, the rate for most skilled crafts being raised from $1.25 to $1.34 an hour.

The new agreements further provided for elimination of double-time rates for Saturday and Sunday work as such, and prescribed instead for the payment of time and a half for the sixth consecutive day and double time for the seventh consecutive day in a worker's regularly established week. The agreements also provided for the payment of time and a half for all work on holidays recognized by local agreements and authorized the acceptance of extra pay in lieu of vacations.

The amended agreements became effective in each of the regions at the expiration of the first year of the original agreement and are to remain in effect for the duration of the war. Provision is made for the periodic review of wages.

Hourly Earnings, by Region, Spring of 1943

The average hourly straight-time earnings of first-shift workers in private ship-repair yards amounted to $1.062 an hour in May 1943. The highest earnings in any of the four regions, $1.259, were found on the Pacific Coast; and the lowest, 92.3 cents, on the Gulf Coast (table 2). The averages for the Atlantic and Great Lakes regions

[6] See Monthly Labor Review, July 1942 (p. 85) for details of the 1942 shipbuilding-stabilization agreements.

were $1.032 and $1.112 an hour, respectively. These averages indicate the existence of substantial differences in wage or occupational structures in the different regions.

TABLE 2.—*Earnings and Distribution of Day-Shift Ship-Repair Workers in Selected Occupations, by Region, Occupation, and Class, Spring of 1942 and 1943*

STRAIGHT-TIME AVERAGE HOURLY EARNINGS[1]

Occupation and class	Atlantic Coast		Gulf Coast		Pacific Coast		Great Lakes	
	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1943
All occupations studied	$1.032	$0.914	$0.923	$0.796	$1.259	$1.166	$1.112	$1.033
Anglesmiths	1.097	1.105	1.265	.973	(2)	(2)		
First class	1.200	1.114	(2)	(2)	(2)	(2)		
Other classes	.959	(2)	(2)	(2)				
Anglesmiths' helpers	.954	.880	(2)	(2)	(2)	(2)	.930	
Apprentices	.766	.553	.835	.752	1.052	.659		.75
Blacksmiths	1.089	1.082	1.151	1.049	1.348	1.264	1.213	1.19
First class	1.201	1.152	1.200	1.095	1.348	1.264	1.223	1.20
Other classes	.990	.928	1.066	(2)			(2)	(2)
Blacksmiths' helpers	.855	.768	.732	.660	1.060	.983	(2)	.83
Boilermakers	1.103	1.045	1.075	.993	1.337	1.250	1.237	(2)
First class	1.200	1.120	1.202	1.072	1.340	1.250	1.237	(2)
Other classes	1.004	.925	.951	.806	(2)			(2)
Boilermakers' helpers	.796	.708	.726	.617	1.060	.970	.890	.82
Bolters, hand [3]	.980	.849				.984	.915	.97
First class	1.049	.934				.984	.915	1.02
Other classes	.945	.777						.78
Burners, acetylene (including gas)	1.099	1.013	1.132	.989	1.340	1.244	1.189	1.16
First class	1.207	1.103	1.200	1.070	1.340	1.250	1.195	1.18
Other classes	1.034	.924	1.004	.851		1.155	(2)	(2)
Burners' helpers, acetylene (including gas)	(2)	(4)	.712	(4)		(4)		(4)
Carpenters (shipwrights)	1.152	1.074	1.114	1.023	1.339	1.248	1.220	1.08
First class	1.193	1.118	1.197	1.070	1.340	1.250	1.220	1.12
Other classes	1.010	.946	.990	.855	(2)	1.120		1.02
Carpenters' helpers	.840	.732	.727	.624	1.060	.970	(2)	.84
Chippers and calkers (including foundry chippers)	1.134	1.070	1.147	1.048	1.344	1.340	1.192	1.13
First class	1.198	1.117	1.167	1.070	1.344	1.378	1.200	1.17
Other classes	1.005	.930	1.051	.885		1.128	(2)	1.03
Coppersmiths	1.123	1.097	(2)	.963		1.314		
First class	1.302	1.251	(2)	1.105		1.314		
Other classes	1.034	.904	(2)	.773				
Coppersmiths' helpers	.833	.723	(2)	(2)		.970		
Crane operators (all types)	1.143	1.051	1.129	1.086	1.390	1.307	1.256	1.13
First class	1.187	1.077	1.162	1.086	1.390	1.307	1.256	1.16
Other classes	1.070	.968	1.056					(2)
Draftsmen (senior and junior)	1.211	1.208	1.312	.893	1.406	(2)		
Drillers (including reamers and counter sinkers)	1.108	.994	.750	.695	1.210	1.118	.902	1.03
First class	1.169	1.044		.695	1.210	1.120	.902	1.03
Other classes	1.016	.916	.750			(2)		(2)
Electricians	1.094	1.028	1.110	.969	1.334	1.250	1.183	1.13
First class	1.200	1.118	1.200	1.070	1.340	1.250	1.189	1.20
Other classes	1.010	.893	.970	.857	1.220		(2)	1.06
Electricians' helpers	.839	.740	.706	.628	1.060	.970	(2)	.86
Erectors	.947							1.02
First class	(2)							
Other classes	.936							1.03
Erectors' helpers	.805							.83
Foremen (including assistant foremen and quartermen)	1.673	1.443	1.682	1.672	1.832	1.750	1.649	1.45
Furnace men (plate and forge shops)	1.195	1.153		(2)		1.133		1.08
First class	(2)	(2)				(2)		(2)
Other classes	(2)	(2)		(2)		(2)		1.05
Handymen, not elsewhere classified	1.009	.789					(2)	
Helpers, not elsewhere classified	.835	.753	.604		1.060		(2)	
Joiners (including woodworking-machine operators)	1.166	1.063			1.341	1.251	1.200	(2)
First class	1.192	1.118			1.341	1.251	1.200	(2)
Other classes	1.066	.935						
Joiners' helpers	.836	.744			1.060	.970	(2)	(2)
Laborers (excluding tank cleaners and janitors)	.774	.696	.605	.540	1.022	.890	.805	.69

See footnotes at end of table.

TABLE 2.—*Earnings and Distribution of Day-Shift Ship-Repair Workers in Selected Occupations, by Region, Occupation, and Class, Spring of 1942 and 1943*—Con.

STRAIGHT-TIME AVERAGE HOURLY EARNINGS—Continued

Occupation and class	Atlantic Coast		Gulf Coast		Pacific Coast		Great Lakes	
	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942
Layers-out	(1)	$1.190	(1)	(1)	------	------	(1)	$1.350
First class	(1)	$1.190	(1)	(1)	------	------	(1)	1.350
Other classes	(1)	------	(1)	------	------	------	(1)	------
Leaders	$1.293	1.181	$1.140	$1.116	$1.527	$1.459	$1.269	1.288
Learners	.760	------	------	------	------	------	.919	.906
Leftsmen	1.338	1.192	1.251	1.100	(1)	------	------	(1)
First class	(1)	1.448	(1)	1.280	(1)	------	------	(1)
Other classes	1.265	(1)	(1)	.920	------	------	------	------
Machinists, shop and outside	1.122	1.050	1.135	1.038	1.338	1.253	1.186	1.082
First class	1.201	1.122	1.200	1.070	1.345	1.253	1.202	1.120
Other classes	1.026	.920	1.013	.890	1.206	1.120	1.058	.998
Machinists' helpers, shop and outside	.837	.752	.713	.634	1.061	.970	.887	.826
Molders, foundry	------	(1)	(1)	(1)	------	------	------	------
First class	------	(1)	(1)	(1)	------	------	------	------
Other classes	------	------	------	------	------	------	------	------
Painters, brush and spray	1.036	.863	1.129	1.024	1.340	1.250	1.169	1.178
First class	1.139	.919	1.198	1.070	1.340	1.250	1.207	1.186
Other classes	1.007	.853	.960	.936	------	------	(1)	(1)
Pattern makers	1.226	1.280	1.330	(1)	------	------	------	------
First class	1.273	1.280	1.330	(1)	------	------	------	------
Other classes	(1)	------	------	------	------	------	------	------
Pipe fitters (including plumbers)	1.105	1.034	1.128	1.042	1.338	1.249	1.194	1.085
First class	1.199	1.118	1.198	1.070	1.341	1.250	1.206	1.120
Other classes	1.014	.931	.970	.820	1.220	(1)	(1)	1.027
Pipe fitters' helpers (including plumbers' helpers)	.836	.744	.717	.643	1.060	.970	.838	.828
Plate-shop machine operators	1.018	.947	1.087	.774	(1)	1.197	1.093	1.091
First class	1.174	1.060	1.202	1.070	(1)	1.201	1.125	1.075
Other classes	.985	.823	.915	.685	------	(1)	1.008	1.097
Plate-shop machine operators' helpers	.834	.732	.697	.606	------	1.038	.860	.834
Regulators	1.077	(1)	1.200	1.103	------	1.170	------	.800
First class	(1)	(1)	1.200	1.103	------	1.170	------	------
Other classes	1.016	------	------	------	------	------	------	.800
Riggers, ship	1.106	.955	1.151	(1)	1.288	1.250	1.000	(1)
First class	1.203	1.119	1.188	(1)	1.288	1.250	(1)	(1)
Other classes	1.032	.878	1.089	------	------	------	1.000	------
Riggers, yard and crane	1.067	.876	.808	.795	1.220	1.158	.992	.987
First class	1.148	.879	.853	.930	1.220	1.158	1.015	1.007
Other classes	.914	.801	.773	.754	------	------	.882	.900
Rivet heaters	.929	.865	.774	.713	(1)	1.120	1.201	.876
Rivet holders-on	1.202	1.111	.783	.734	1.218	1.177	1.140	.962
Rivet passers	.823	.765	.729	.685	------	------	.758	.708
Riveters	1.212	1.142	1.191	1.174	1.340	1.241	1.374	1.158
First class	1.222	1.151	1.200	1.174	1.340	1.241	1.374	1.161
Other classes	1.112	.924	(1)	------	------	------	------	(1)
Sheet-metal workers (including tinsmiths)	1.095	.944	1.033	.936	1.340	1.216	1.200	1.145
First class	1.220	1.115	1.193	1.087	1.340	1.250	1.200	1.173
Other classes	1.017	.881	.970	.818	------	1.101	------	(1)
Sheet-metal workers' helpers	.837	.709	.718	.645	1.060	.971	(1)	(1)
Ship fitters	1.044	.969	1.131	.920	1.339	1.250	1.187	1.196
First class	1.200	1.128	1.207	1.101	1.340	1.250	1.199	1.395
Other classes	.998	.885	1.080	.804	(1)	------	(1)	.997
Ship fitters' helpers	.830	.746	.711	.609	1.060	.970	.845	.833
Stage builders	------	.812	------	------	1.210	1.120	(1)	1.030
Tank cleaners	------	(1)	------	------	1.100	.954	------	------
Tool and die makers	(1)	(1)	------	------	(1)	------	------	------
First class	(1)	(1)	------	------	(1)	------	------	------
Other classes	------	------	------	------	------	------	------	------
Tracers	.955	(1)	(1)	(1)	------	------	------	------
Watchmen and guards	.788	.746	.606	.450	.956	.890	.737	.793
Welders, acetylene and electric	1.118	1.025	1.148	1.091	1.345	1.254	1.206	1.138
First class	1.200	1.095	1.198	1.091	1.345	1.264	1.209	1.146
Other classes	1.038	.926	1.000	------	------	1.142	(1)	1.030
Welders' helpers, acetylene and electric	.785	.739	.684	------	------	.970	(2)	.850

See footnotes at end of table.

TABLE 2.—*Earnings and Distribution of Day-Shift Ship-Repair Workers in Selected Occupations, by Region, Occupation, and Class, Spring of 1942 and 1943*—Con.

PERCENT OF WORKERS

Occupation and class	Atlantic Coast		Gulf Coast		Pacific Coast		Great Lakes	
	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942
All occupations studied	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Anglesmiths	.2	.2	.1	.2	(1)	(1)		
First class	.1	.2	.1	.1	(1)	(1)		
Other classes	.1	(1)	(1)	.1				
Anglesmiths' helpers	.1	.2	(1)	.1	.1	(1)	.5	
Apprentices	.4	1.7	5.9	3.9	.3	.3		.1
Blacksmiths	.4	.4	.4	.5	.2	.2	.9	.3
First class	.2	.3	.3	.4	.2	.2	.8	.4
Other classes	.2	.1	.1	.1			.1	.1
Blacksmiths' helpers	.4	.5	.7	.2	.3	.4	.4	.5
Boilermakers	1.0	1.3	2.5	2.9	2.9	3.4	2.3	.3
First class	.5	.8	1.2	1.4	2.8	3.4	2.3	.1
Other classes	.5	.5	1.3	1.5	.1			.1
Boilermakers' helpers	.5	.7	5.1	10.8	6.9	5.7	3.7	1.3
Bolters, hand [2]	1.1	1.4				.3	5.2	5.1
First class	.4	.6				.3	5.2	4.7
Other classes	.7	.8						1.4
Burners, acetylene (including gas)	3.5	2.5	1.5	1.2	2.5	2.6	5.8	2.6
First class	1.3	1.2	1.0	.8	2.5	2.4	5.6	2.4
Other classes	2.2	1.3	.5	.4		.2	.2	.1
Burners' helpers, acetylene (including gas)	(1)	(1)	.5	(1)		(1)		(1)
Carpenters (shipwrights)	8.8	5.3	5.7	3.2	6.0	6.8	2.5	3.3
First class	6.8	3.9	3.4	2.5	6.0	6.7	2.5	2.3
Other classes	2.0	1.4	2.3	.7	(1)	.1		.9
Carpenters' helpers	.6	.6	.8	2.8	1.5	1.1	.1	2.8
Chippers and calkers (including foundry chippers)	3.1	2.2	2.2	2.1	1.7	1.0	3.0	2.7
First class	2.1	1.6	1.8	1.8	1.7	.9	2.9	1.6
Other classes	1.0	.6	.4	.3		.1	.1	1.1
Coppersmiths	.3	.2	.1	.4		.1		
First class	.1	.1	.1	.2		.1		
Other classes	.2	.1	(1)	.2				
Coppersmiths' helpers	.2	.3	(1)	.1		.3		
Crane operators (all types)	.3	.3	.5	.3	.2	.2	1.4	1.1
First class	.2	.2	.4	.3	.2	.2	1.4	.9
Other classes	.1	.1	.1					.2
Draftsmen (senior and junior)	.1	.3	.5	.8	.5	.1		
Drillers (including reamers and counter sinkers)	1.0	.9	.6	.6	.6	1.3	2.0	1.5
First class	.6	.5		.6	.6	1.2	2.0	1.4
Other classes	.4	.4	.6			.1		.3
Electricians	5.3	3.7	3.3	7.2	6.7	6.7	1.7	3.4
First class	2.3	2.2	2.0	3.8	6.4	6.7	1.6	2.3
Other classes	3.0	1.5	1.3	3.4	.3		.1	1.1
Electricians' helpers	1.9	3.0	1.5	4.0	.8	4.2	.2	1.1
Erectors	.6							1.1
First class	(1)							
Other classes	.6							1.1
Erectors' helpers	.1							.4
Foremen (including assistant foremen and quartermen)	.8	.6	3.0	1.7	1.2	.3	5.3	1.4
Furnace men (plate and forge shops)	(1)	.1		.1		.1		.5
First class	(1)	(1)				(1)		.1
Other classes	(1)	(1)		.1		.1		.3
Handymen, not elsewhere classified	.1	.2					.4	
Helpers, not elsewhere classified	1.7	3.0	.8		.1		.2	
Joiners (including woodworking-machine operators)	2.1	2.7			5.4	5.7	2.8	.1
First class	1.7	1.9			5.4	5.7	2.8	.1
Other classes	.4	.8						
Joiners' helpers	.2	.3			.3	1.1	.3	.1
Laborers (excluding tank cleaners and janitors)	7.4	10.0	15.7	16.6	5.8	2.4	3.7	7.8
Layers-out	(1)	.2	(1)	.1			.4	.4
First class	(1)	.2	(1)	.1			.3	.4
Other classes	(1)			(1)			.1	
Leaders	5.4	5.2	4.9	4.8	6.5	5.6	7.1	6.3
Learners	1.7						4.9	.6
Loftsmen	.1	.1	.1	.5	(1)			.2
First class	(1)	.1	.1	.2	(1)			.1
Other classes	.1	(1)	(1)	.3				

See footnotes at end of table.

TABLE 2.—*Earnings and Distribution of Day-Shift Ship-Repair Workers in Selected Occupations, by Region, Occupation, and Class, Spring of 1942 and 1943*—Con.

PERCENT OF WORKERS—Continued

Occupation and class	Atlantic Coast		Gulf Coast		Pacific Coast		Great Lakes	
	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942	Spring 1943	Spring 1942
Machinists, shop and outside	9.0	10.8	7.4	5.7	10.2	9.6	5.7	3.0
First class	4.9	6.9	4.8	4.7	9.7	9.5	5.1	2.1
Other classes	4.1	3.9	2.6	1.0	.5	.1	.6	.9
Machinists' helpers, shop and outside	3.6	3.9	5.1	5.8	6.9	4.2	.9	1.5
Molders, foundry	-------	(2)	.1	.1	-------	-------	-------	-------
First class	-------	(2)	.1	.1	-------	-------	-------	-------
Other classes	-------	-------	-------	-------	-------	-------	-------	-------
Painters, brush and spray	2.9	3.0	1.9	2.6	1.5	4.7	1.0	1.3
First class	.6	.5	1.3	1.7	1.5	4.7	.9	1.2
Other classes	2.3	2.5	.6	.9	-------	-------	.1	.1
Pattern makers	.1	.1	.2	.1	-------	-------	-------	-------
First class	.1	.1	.2	.1	-------	-------	-------	-------
Other classes	(3)	-------	-------	-------	-------	-------	-------	-------
Pipe fitters (including plumbers)	4.0	3.7	3.8	2.8	5.6	3.7	2.1	3.0
First class	1.9	2.1	2.6	2.5	5.5	3.7	2.0	1.9
Other classes	2.1	1.6	1.2	.3	.1	(3)	.1	1.1
Pipe fitters' helpers (including plumbers' helpers)	3.0	3.5	3.7	4.1	4.9	3.5	2.1	4.9
Plate-shop machine operators	.4	.3	.3	1.6	.1	.5	1.9	1.7
First class	.1	.2	.2	.4	.1	.5	1.4	.5
Other classes	.3	.1	.1	1.2	-------	(3)	.5	1.2
Plate-shop machine operators' helpers	.3	.2	2.8	1.7	-------	.3	1.5	3.5
Regulators	(3)	(3)	.2	.2	-------	2.2	-------	1.1
First class	(3)	(3)	.2	.2	-------	2.2	-------	-------
Other classes	(3)	-------	-------	-------	-------	-------	-------	1.1
Riggers, ship	2.9	2.8	.7	.1	5.3	2.5	.6	.1
First class	1.3	.9	.5	.1	5.3	2.5	.1	.1
Other classes	1.6	1.9	.2	-------	-------	-------	.5	-------
Riggers, yard and crane	3.2	3.2	.6	1.1	.2	.5	4.3	3.6
First class	2.1	3.1	.3	.3	.2	.5	3.6	2.9
Other classes	1.1	.1	.3	.8	-------	-------	.7	.7
Rivet heaters	.3	.7	.5	.5	.1	.1	1.0	1.7
Rivet holders-on	.2	.4	.4	.6	.1	.2	2.6	2.2
Rivet passers	.1	.4	.7	.7	-------	-------	.7	3.8
Riveters	1.5	1.7	.5	.4	.4	.4	2.8	2.1
First class	1.4	1.6	.5	.4	.4	.4	2.8	2.0
Other classes	.1	.1	(5)	-------	-------	-------	-------	.1
Sheet-metal workers (including tinsmiths)	1.9	1.5	1.6	1.0	2.2	2.6	.9	1.2
First class	.7	.4	.5	.4	2.2	2.0	.9	1.0
Other classes	1.2	1.1	1.1	.6	-------	.6	-------	.2
Sheet-metal workers' helpers	1.5	1.5	1.5	1.5	1.1	2.0	.1	.2
Ship fitters	4.2	2.2	3.0	1.1	3.1	1.6	3.1	1.7
First class	.9	.8	1.2	.4	3.1	1.6	2.9	.9
Other classes	3.3	1.4	1.8	.7	(3)	-------	.2	.8
Ship fitters' helpers	3.5	2.6	2.0	.4	1.2	3.0	2.0	1.6
Stage builders	-------	.2	-------	-------	.5	1.1	.2	4.1
Tank cleaners	-------	(5)	-------	-------	1.5	1.4	-------	-------
Tool and die makers	(3)	(3)	-------	-------	.1	-------	-------	-------
First class	(3)	(5)	-------	-------	.1	-------	-------	-------
Other classes	-------	-------	-------	-------	-------	-------	-------	-------
Tracers	(3)	(3)	(3)	.1	-------	-------	-------	-------
Watchmen and guards	2.7	4.7	1.3	1.2	1.1	1.0	2.8	1.7
Welders, acetylene and electric	5.0	3.5	4.6	1.5	3.4	4.7	8.9	7.0
First class	2.5	2.1	3.4	1.5	3.4	4.3	8.8	6.5
Other classes	2.5	1.4	1.2	-------	-------	.4	.1	.5
Welders' helpers, acetylene and electric	.3	1.0	.7	-------	-------	.3	.1	.8

[1] Excluding earnings resulting from extra pay for overtime work.
[2] Number of workers too small to justify computation of average.
[3] Includes a small number of machine bolters.
[4] Occupations not included in spring 1942 study.
[5] Less than a tenth of 1 percent.

ATLANTIC COAST

The Atlantic Coast region is the most important of all the ship-repair areas, measured by either number of yards or number of workers. Data obtained in the present survey indicate that more than half of the yards and about two-thirds of the workers in the ship-repair industry are found in this region.

First-shift workers in Atlantic Coast yards were reported in 57 of the 60 selected occupations studied. However, nearly seven-tenths (69.0 percent) of the workers were concentrated in 14 occupations. Machinists accounted for 9.0 percent of the workers studied, carpenters for 8.8 percent, and laborers for 7.4 percent. Relatively large numbers of workers were also reported for pipe fitters, ship fitters, welders, electricians, and leaders.

Occupational average hourly earnings in the Atlantic Coast region varied from 76.0 cents for learners to $1.673 for foremen. Roughly one-fourth (22.9 percent) of all the workers in Atlantic Coast ship-repair yards were in jobs averaging $1.20 or more an hour. A large proportion of these workers were first-class craftsmen. Two-fifths (40.3 percent) of all the workers, most of whom were craftsmen below first class, were in occupations averaging between $1.00 and $1.20 an hour. Another fourth (23.8 percent), predominantly helpers to the various craftsmen, averaged between 80 cents and $1 an hour.

In 13 of the 23 occupations in which separate figures are shown for first-class workers, average hourly earnings were at least $1.20 an hour, the minimum rate established for such workers under terms of the second wage-stabilization agreement adopted in 1942. Fully half of all first-class workers were found in these 13 occupations. Moreover, in 5 of the remaining 10 occupations the earnings of first-class workers were less than 2 cents lower than the $1.20 minimum and in 2 additional occupations their earnings were less than 4 cents below the minimum. In only three occupations did first-class workers have earnings substantially lower than the established $1.20 minimum—yard and crane riggers ($1.148), brush and spray painters ($1.139), and hand bolters ($1.049). Low wages in a number of small yards which did not subscribe to the stabilization program, coupled with differences among yards in the application of the program, account for subminimum average earnings in the 10 occupations.

The average hourly earnings of journeymen below first class ranged from 91.4 cents for yard and crane riggers to $1.265 for loftsmen. Most of the occupations, however, had a much narrower range in earnings. In 19 of the 25 occupations in which earnings are shown for journeymen below first class, the differences in the averages were less than 10 cents, and in 14, less than 5 cents. Much of the variation in the earnings of journeymen below first class is undoubtedly accounted for by the wide differences from yard to yard in the proportion of workers in the individual classes represented.

The earnings of journeymen's helpers varied comparatively little. Most of these workers were in occupations with average hourly earnings ranging from 78.5 cents to 85.5 cents an hour.

Less than a half of 1 percent of the workers in Atlantic Coast ship-repair yards worked under incentive methods of wage payment, and incentive earnings increased the regional average by only a tenth of 1 percent. The concentration of incentive workers in a few occupations, however, particularly the occupations associated with riveting, influenced considerably the earnings of these workers. As a group, incentive workers in this region earned 23.5 percent more than they would have received at their basic hourly rates.

Average hourly earnings did not vary consistently according to size of yard, both the lowest and the highest averages being reported by small yards. In general, however, earnings were higher in the large yards than in the small yards.

Some idea of the variation in occupational averages between yards may be had from the following tabulation of low and high yard averages for first-class workers in four representative occupations. The lowest averages were all found in very small yards, while three of the four high averages were for yards employing between 300 and 650 workers. The fourth high average was for a small yard employing fewer than 100 workers.

	Average hourly earnings	
	Lowest	*Highest*
Chippers and calkers	$0.975	$1.218
Machinists, shop and outside	.838	1.240
Riggers, ship	1.000	1.250
Welders, acetylene and electric	.900	1.269

GULF COAST

Ship-repair activities in the Gulf Coast region, although limited in volume, play an important part in the country's wartime industrial program.

First-shift workers in Gulf Coast ship-repair yards were reported in but 49 of the 60 selected occupations covered by the study. The occupations for which workers were not reported included such usual shipyard crafts as hand bolters, erectors, joiners, and tool and die makers. Prominence of welded ships in this region accounts, in part, for the absence of hand bolters, while the duties of the other missing occupations were combined in other jobs.

Over one-half (54.4 percent) of the workers reported in this region were concentrated in eight occupations. Laborers accounted for 15.7 percent and machinists for 7.4 percent of the workers. Other occupations containing more than 4 percent of the workers surveyed were apprentices (5.9 percent), carpenters (5.7 percent), boilermakers' helpers (5.1 percent), machinists' helpers (5.1 percent), leaders (4.9 percent), and welders (4.6 percent).

The range in average hourly earnings by occupation in the Gulf Coast region was from 60.4 cents for general helpers to $1.682 for foremen. Approximately one-fourth of the workers, most of whom were first-class craftsmen, were in occupations averaging more than $1.18 an hour; and another two-fifths, which included large numbers of helpers, laborers, and apprentices, were in occupations averaging less than 75 cents an hour.

In practically all occupations the earnings of first-class workers either equaled or closely approximated the established minimum of $1.20. The failure of some yards to subscribe to the stabilization program and the practice in other yards of paying first-class workers subminimum rates during a brief probation period account for some of the cases in which the average was lower than the established minimum. Unlike other regions, the Gulf Coast region does not recognize the occupation of yard and crane riggers as being subject to the stabilization minimum. Workers in this occupation earned an average of 85.3 cents an hour.

The wide variation in the earnings of journeymen below first class in the Gulf Coast region, as in the Atlantic Coast region, is due largely to wide differences from yard to yard in the proportion of workers in each of the classes of workers which make up this group. The lowest earnings for these workers (75.0 cents) were found in the occupation

of drillers and counter sinkers, and the highest ($1.089) in the occupation of ship riggers. Fourteen of the 17 occupations for which figures are shown for journeymen other than first class had average earnings within the 15-cent interval 95.0 cents to $1.10.

Helpers to the various craftsmen were generally paid rates averaging from about 68 cents to approximately 73 cents an hour, although a relatively small proportion of unclassified helpers had average earnings of only 60.4 cents an hour.

Considerable variation in earnings was found among yards. These differences, however, were very largely confined to journeymen below first class and to helpers. Individual yard averages ranging from 85.0 cents to $1.114 for "other classes" of carpenters and from 68.3 to 75.0 cents for electricians' helpers are typical of the range of earnings of other than first-class workers.

PACIFIC COAST

The ship-repair industry on the West Coast has the highest wage structure of any region in the industry. As previously pointed out, repair-yard operators and representatives of labor in the Pacific Coast region have entered into special agreements which provide substantially higher rates than were established by the general stabilization agreements under which the industry is operating in the other regions.

The occupational structure of West Coast repair yards is much less diversified than that found in either the Atlantic or the Gulf Coast regions. Workers were reported in only 43 of the 60 selected occupations studied and seven-tenths of all these workers were found in 11 occupations. The greatest concentration (10.2 percent) was in the occupation of machinist. Other occupations with more than 5 percent of the workers were boilermakers' helpers, machinists' helpers, electricians, leaders, carpenters, laborers, pipe fitters, joiners, and ship riggers. Practically all journeymen in this region were first-class workers. Thus, of all first-shift workers studied, 57.3 percent were first-class journeymen and only 1.0 percent were below first class.

Average hourly earnings in West Coast repair yards ranged from 95.6 cents for watchmen to $1.832 for foremen. Three-fifths (59.2 percent) of the first-shift workers in Pacific Coast yards, for whom averages are presented, were in occupations in which earnings ranged upward from $1.34 an hour, the prevailing minimum rate for most skilled crafts under terms of the special wage agreements in effect in the area. Included in this group are first-class workers in 15 occupations, representing slightly more than one-half of all workers surveyed in this region. Three other groups of first-class workers (ship riggers, yard and crane riggers, and drillers) had average earnings somewhat below $1.34 an hour. These workers were not generally recognized by most yards as being subject to the minimum rate.

Journeymen other than first class (commonly called trainees in this region) were found in only a few occupations. Most of these workers had earnings averaging approximately $1.20 an hour.

Practically all journeymen's helpers received $1.060 an hour. Fully 24 percent of all the workers studied were reported as helpers. The uniformity of the wage structure in West Coast repair yards is also confirmed by the general yard averages. There was a spread of

less than 7 cents between the averages for the lowest-paying and highest-paying yards. These limited variations are due largely to differences in occupational structure among yards.

GREAT LAKES

Ship-repair yards in the Great Lakes area are engaged primarily in the maintenance and repair of ships used in lake transportation. Yards in this area employ considerably fewer workers than any one of the other three regions covered by the study.

Only 44 of the 60 selected occupations studied in this survey were found in ship-repair yards in the Great Lakes region, and nearly a half (47.2 percent) of all first-shift workers were concentrated in 8 of these occupations. Welders and leaders included the largest proportion of workers, 8.9 and 7.1 percent, respectively. Other occupations embracing between 4 and 6 percent of the workers were acetylene burners, machinists, foremen, hand bolters, learners, and yard and crane riggers.

Roughly, half (46.6 percent) of the first-shift workers studied were in occupations averaging as much as or more than $1.20 an hour, the stabilization minimum for first-class workers in the Great Lakes area, and another 10 percent were in occupations averaging within 2 cents of that minimum. Considerably lower earnings were received by first-class workers in four occupations, namely, plate-shop machine operators ($1.125), yard and crane riggers ($1.015), hand bolters ($0.915), and drillers ($0.902). The 3 last-named occupations were not recognized by any of the yards as subject to the stabilization minimum. The earnings of plate-shop machine operators, as well as those in a number of occupations showing average earnings only slightly below $1.20 for first-class workers, reflect subminimum rates paid in some yards to various first-class workers during a probationary period.

There were relatively few journeymen in the classes below first class. These workers, who accounted for less than 4 percent of all first-shift workers covered, were distributed among 13 occupations. The earnings of most of these workers were concentrated within the 5-cent interval—$1.00 to $1.05.

About one-fifth (18.1 percent) of the workers, comprising helpers to the various craftsmen, laborers, and watchmen and guards, were in occupations with average earnings of less than 90 cents an hour.

For most occupations, average hourly earnings were quite uniform from yard to yard. The few variations reported are primarily attributable to incentive methods of wage payment found in some of the yards. Only 2.2 percent of the workers studied worked under incentive wage systems and their earnings increased the regional average by only 1 percent. The influence of incentive payments on the average earnings of individual occupations in which such earnings are found is much more pronounced, however. As a group, incentive workers in this region were able to increase their basic hourly earnings by 48.5 percent.

Regional Differences in Earnings

It is apparent from the foregoing that widely different wage levels are found in ship-repair yards in the four broad regions in which repair operations are carried on. The highest earnings are found in the Pacific Coast region where first-shift workers earned an average of $1.259 in May 1943. These earnings exceed by 14.7 cents the earnings of workers in the Great Lakes region, by 22.7 cents those found in the Atlantic Coast region, and by 33.6 cents the earnings shown for the Gulf Coast region. Part of this variation in earnings can be attributed to the difference in the levels at which the rates of pay of first-class journeymen were stabilized by the regional agreements. The minimum rate of pay of such workers, it will be recalled, was set at $1.20 an hour in three regions—Atlantic, Gulf, and Great Lakes—and at $1.34 an hour for most crafts in the Pacific Coast region.

The general averages for the four regions, however, also reflect the wide interregional differences in the earnings of workers other than first-class skilled mechanics. No attempt was made in any of the regional agreements to stabilize the wages of workers other than first-class skilled mechanics. The stabilization of the wages of such workers was left entirely to local collective bargaining. Over-all regional averages are also profoundly influenced by differences in the occupational structure of the various regions. It will be recalled that of the 60 representative occupations for which wage data were sought in this study, workers were reported for 57 in the Atlantic Coast region, for 49 in the Gulf Coast region, for 44 in the Great Lakes region, and for 43 in the Pacific Coast region. Wide variations are also found in the distribution of workers among the classes or grades within occupations.

The variations in regional wage levels are clearly reflected in the distribution of yard averages presented in table 3. These averages tend to concentrate at widely different levels. On the Pacific Coast all yard averages are found within the 10-cent interval—$1.20 to $1.30—and in the Great Lakes area they are found within the 15-cent range—$1.05 to $1.20. Most yards in the Gulf Coast region were found within the 10-cent interval—90.0 cents to $1.00. Despite the wide dispersion of yard averages in the Atlantic Coast region, two-thirds of the yards, employing most of the workers, had averages ranging from 95.0 cents to $1.10.

It is also of interest to compare the average hourly earnings in those individual occupations which are found in all regions. Such information is presented in table 4 for 24 broad occupational groups, for 15 first-class occupations.

TABLE 3.—*Percentage Distribution of Yards and Workers by Yard Average Hourly Earnings and Region, Spring of 1943*

Yard average earnings	Percent of yards with specified yard-average earnings				Percent of workers in yards with specified yard-average earnings			
	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes
70.0 to 74.9 cents	5.6	.....	.....	.....	0.2	.....	.....	.....
75.0 to 79.9 cents	5.6	16.7	.....	.....	.4	1.8	.....	.....
80.0 to 84.9 cents	.....	.....	.....	.....	.....	.....	.....	.....
85.0 to 89.9 cents	5.6	.....	.....	.....	.4	.....	.....	.....
90.0 to 94.9 cents	5.6	66.6	.....	.....	3.2	94.9	.....	.....
95.0 to 99.9 cents	27.7	16.7	.....	.....	30.7	3.3	.....	.....
$1.000 to $1.049	11.0	.....	.....	.....	29.0	.....	.....	.....
$1.050 to $1.099	27.7	.....	.....	40.0	32.2	.....	.....	21.6
$1.100 to $1.149	5.6	.....	.....	40.0	2.8	.....	.....	60.1
$1.150 to $1.199	.....	.....	.....	20.0	.....	.....	.....	18.3
$1.200 to $1.249	5.6	.....	20.0	.....	1.1	.....	33.3	.....
$1.250 to $1.299	.....	.....	80.0	.....	.....	.....	66.7	.....
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 4.—*Comparative Average Straight-Time Hourly Earnings of Day-Shift Workers in Selected Occupations Appearing in all Regions, Spring of 1943*

Occupation	All classes of workers				First-class workers			
	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes
Blacksmiths	$1.089	$1.151	$1.348	$1.213	$1.201	$1.200	$1.348	$1.223
Boilermakers	1.103	1.075	1.337	1.237	1.200	1.202	1.340	1.237
Boilermakers' helpers	.796	.726	1.060	.890	.....	.....	.....	.....
Burners, acetylene (including gas)	1.099	1.132	1.340	1.189	1.207	1.200	1.340	1.195
Carpenters (shipwrights)	1.152	1.114	1.339	1.220	1.193	1.197	1.340	1.220
Chippers and calkers (including foundry chippers)	1.134	1.147	1.344	1.192	1.198	1.167	1.344	1.200
Crane operators (all types)	1.143	1.129	1.390	1.256	1.187	1.162	1.390	1.256
Drillers	1.108	.750	1.210	.902	.....	.....	.....	.....
Electricians	1.094	1.110	1.334	1.183	1.200	1.200	1.340	1.189
Foremen (including assistant foremen and quartermen)	1.673	1.682	1.832	1.649	.....	.....	.....	.....
Laborers (excluding tank cleaners and janitors)	.774	.605	1.022	.805	.....	.....	.....	.....
Machinists, shop and outside	1.122	1.135	1.338	1.186	1.201	1.200	1.345	1.202
Machinists' helpers, shop and outside	.837	.713	1.061	.887	.....	.....	.....	.....
Painters, brush and spray	1.036	1.129	1.340	1.169	1.139	1.198	1.340	1.207
Pipe fitters (including plumbers)	1.105	1.128	1.338	1.194	1.199	1.198	1.341	1.206
Pipe fitters' helpers (including plumbers' helpers)	.836	.717	1.060	.838	.....	.....	.....	.....
Riggers, yard and crane	1.067	.808	1.220	.992	1.148	.853	1.220	1.015
Rivet holders-on	1.202	.783	1.218	1.140	.....	.....	.....	.....
Riveters	1.212	1.191	1.340	1.374	1.222	1.200	1.340	1.374
Sheet-metal workers (including tinsmiths)	1.095	1.033	1.340	1.260	1.220	1.193	1.340	1.200
Ship fitters	1.044	1.131	1.339	1.187	1.200	1.207	1.340	1.199
Ship fitters' helpers	.830	.711	1.060	.845	.....	.....	.....	.....
Watchmen and guards	.788	.606	.956	.737	.....	.....	.....	.....
Welders, acetylene and electric	1.118	1.148	1.345	1.206	1.200	1.198	1.345	1.209

The averages for the broad occupational groups reveal the Pacific Coast region as paying the highest wages in all occupations except that of riveter. The Great Lakes area, because of incentive premiums, pays the highest wage for that work. Workers in the Great Lakes area generally had the second highest earnings. In 14 of the 24 occupations, earnings in the Atlantic Coast region were higher than in the Gulf Coast region, and in 10 they were lower. A comparison of average earnings for first-class workers reflects similar results. In 14 of the 15 first-class occupations for which figures are shown in table

4, the highest earnings were found in the Pacific Coast region. The Great Lakes region again had the highest average for riveters. In 10 of the 15 occupations, earnings were higher in the Atlantic Coast region than in the Gulf Coast region, in 4 they were lower, and in one there was no difference.

A comparison of the earnings of workers in 28 classifications [7] which were found in all regions and which are comparable from one region to another provides a dependable measure of regional variations in wage levels that is not disturbed by differences in occupational structure. In the following tabulation of averages, each occupation has been given the same weight in all regions. It is of interest to observe that this approach considerably reduces the apparent wage advantage of the Pacific Coast and Great Lakes regions over the Atlantic Coast and Gulf regions. Clearly the higher wages prevailing in the former regions are exaggerated somewhat by differences in the distribution of workers by occupation and class.

	Atlantic	*Gulf*	*Pacific*	*Great Lakes*
Total, 28 selected classifications	$1.024	$0.953	$1.205	$1.036
First-class skilled mechanics	1.196	1.180	1.333	1.193
Journeymen's helpers	.832	.708	1.061	.863
Laborers	.774	.605	1.022	.805

Earnings Comparisons, 1942 and 1943

The straight-time hourly earnings of day-shift workers in ship-repair yards in the United States as a whole averaged $1.062 an hour in May 1943, or 9.1 cents more than the average of 97.1 cents for the corresponding period in 1942 (table 5). This increase, however, is influenced to some extent by wide and uneven increases in employment among regions between 1942 and 1943. In order to eliminate this influence, averages for the country as a whole were also computed by weighting the regional averages for each year by the 1943 employment in each region. These averages show an increase in earnings of 11.4 cents an hour between 1942 and 1943. It appears that the greatest wage increases occurred in the Atlantic and Gulf regions, where employment increased more rapidly than in the Pacific and Great Lakes regions, which had higher wage levels but smaller wage increases.

TABLE 5.—*Average[1] Straight-Time Hourly Earnings of Day-Shift Ship-Repair Workers in Selected Occupations, by Region, Spring of 1942 and 1943*

Region	Average hourly earnings		Increase
	Spring 1943	Spring 1942	
			Cents
United States	$1.062	[1] $0.971	9.1
Atlantic Coast	1.032	.914	11.8
Gulf Coast	.923	.796	12.7
Pacific Coast	1.259	1.166	9.3
Great Lakes	1.112	1.013	9.9

[1] This average arrived at by weighting the regional averages by the 1942 employment in each region. If, however, the 1943 employment in each region is used in weighting the regional averages, the average for the country as a whole becomes 94.8 cents, and the average increase for the country as a whole becomes 11.4 cents.

[2] This group is made up of first-class journeymen in 17 occupations, journeymen's helpers in 10 occupations, and laborers. The weights used are the weights of the respective jobs in combined figures for all regions.

The absolute increase in hourly earnings between 1942 and 1943 varied from 9.3 cents in the Pacific Coast region to 12.7 cents in the Gulf Coast region. The increases in the Atlantic and Great Lakes regions amounted to 11.8 and 9.9 cents, respectively. In all cases the increases were greater, particularly in the Atlantic Coast region, than the increases provided by the regional agreements.

Wage Rates in Power Laundries, Spring of 1943[1]

Summary

OPERATIVES in power laundries were among the lowest-paid urban workers in the spring of 1943. The laundry industry employs large numbers of women workers, and most of the work requires little training or experience. Median figures representing 36 large cities covered in a study by the Bureau of Labor Statistics reveal an average of 53.5 cents per hour for male extractor operators and an average of 66.5 cents for male washers. Women workers employed as catchers, feeders, and shakers averaged approximately 37 cents per hour, while bosom-press operators, collar- and cuff-press operators, and markers averaged from 41.0 to 42.5 cents. Wages were highest on the Pacific Coast, where some workers were paid more than $1.00 per hour. In the Southern cities, where wages were lowest, women in the least-skilled occupations averaged less than 25 cents per hour, and wages below 15 cents per hour were occasionally encountered.

Because of the low level of wages in this industry and the resulting serious shortage of labor, special regulations were issued by the National War Labor Board and the Director of Economic Stabilization during 1943 to liberalize wage policy as applied to the lowest-paid workers. Wage increases resulting from these regulations came, for the most part, after the period covered by the Bureau's study and are not reflected in the figures reported.

Characteristics of the Industry

Considering total receipts, employment, and pay rolls, power laundries represented in 1939 by far the most important of the service industries that came within the scope of the United States Census of Business. Although no more recent information is available it is likely that with the increased employment of women and the consequent growing dependence on commercial laundry service the relative importance of power laundries among the service industries has grown.

Power laundries are typically concentrated in the larger cities. In 1939 nearly one-fifth of all the power laundries in the United States were in the 14 cities having a population of more than 500,000. These cities accounted for about one-third of all employment in power laundries. It is significant in appraising the representativeness of the data presented below that, with the exception of New York City, all of the cities in this largest-size group are included. Also included is a pro-

[1] Prepared in the Bureau's Division of Wage Analysis by Joseph M. Sherman under the supervision of Harry Ober.

portionately smaller but substantial group of cities with a population from 100,000 to 500,000, located in all regions of the United States.

From the standpoint of form of business organization, a major proportion of the power-laundry business is carried on under corporate ownership. Corporations represented only two-fifths of the total number of establishments in 1939, but these accounted for seven-tenths of the total labor force. Individual proprietorships, while representing over two-fifths of the number of power laundries, accounted for only somewhat over one-sixth of the total employment.

The labor force in power laundries is composed of relatively unskilled workers. The operations and general conditions of work in power laundries are akin in many respects to mass-production manufacturing industries. Working conditions tend to be somewhat unpleasant, especially in the summer. The fact that laundries normally employ a large proportion of women workers, and that no particular aptitude or training of applicants is required, made it possible before the war to obtain sufficient labor without difficulty. Recently, however, when many war industries have been competing for the type of labor employed in laundries, the manpower problem has become acute in the industry.

Scope and Method of Survey

The information for each city covered by the survey is based on a representative sample of power laundries with nine or more employees. In the main the wage data refer to a pay-roll period in the spring of 1943; in 23 of the 36 cities for which figures are presented, the data pertain to an April pay-roll period, in 1 to a May period, and in 3 to a June period. Of the remaining 9 cities, the information for 7 is for a July period, and for 2 a January period.

The wage data presented consist of straight-time average hourly earnings.[2] Premium overtime payments and shift differentials have been eliminated. Although most laundry workers covered were paid on a time basis, such incentive earnings as were paid are reflected in this report. Most of the relatively small number of workers who did receive incentive payments were bosom-press and collar- and cuff-press operators. Some feeders were also found on an incentive basis. Incentive methods of pay were more common in the southern than in the northern communities. Laundries in Memphis commonly reported incentive payments. Significant numbers of incentive workers were also found in Baltimore, Washington, Jacksonville, Richmond, Norfolk, Philadelphia, Pittsburgh, and Cleveland.

Approximately half of the laundries studied had contracts with unions. Unionization was most prevalent among the large establishments and in the large cities. All the laundries studied in Philadelphia, San Francisco, and Seattle were unionized. Two-thirds or more of the establishments included in the survey in Milwaukee, Chicago, Cleveland, Detroit, Kansas City, Minneapolis-St. Paul, Pittsburgh, Portland, Rochester, and Scranton–Wilkes-Barre were operating under union agreements. Few of the establishments scheduled in the southern localities were unionized. Union agreements were rare or entirely

[2] Besides the general average earnings for all workers in the occupation and city, the accompanying table shows the average hourly earnings in the laundries with the highest and lowest earnings for the occupation. These are not the earnings of the lowest and highest paid individual workers in the area but the average earnings of all workers in the establishment.

lacking among the establishments studied in Baltimore, Washington, Dallas, Denver, Grand Rapids, Houston, Indianapolis, Jacksonville, Norfolk, Oklahoma City, Omaha, Richmond, St. Louis, Savannah, and San Diego.

The data presented in this article were obtained by trained field representatives of the Bureau of Labor Statistics from pay-roll and related laundry records. The workers were classified, in each laundry visited, in accordance with standard written occupational descriptions to assure maximum comparability from one establishment to another.

Average Hourly Wage Rates

The eight key jobs selected for study include two classifications (extractor operators and washers) in which men are employed almost exclusively and six (catchers, feeders, shakers, bosom-press operators, collar- and cuff-press operators, and markers) in which women are generally employed. Three distinct levels of rates may be discerned in comparing the eight occupational classifications. In general, extractor operators and washers, the occupations typically employing men, were paid appreciably higher rates than other occupations. Among the other six occupations the catchers, feeders, and shakers, who work as a crew and frequently alternate from one operation to the other, received the lowest rates; only insignificant differences in rates existed among these lowest-paid jobs. With minor exceptions, the press operators (bosom, and collar and cuff) and the markers were receiving rates intermediate between those of the flat-work operators and extractor operators and washers; in general, there was little variation in wage rates among these three operations.

Median average hourly earnings for the eight occupations, by region, are presented in table 1. Although no attempt has been made, in arriving at these medians, to assign different weights to the individual cities, and although the number of cities in some regions is relatively small, the figures are useful for purposes of rough comparison. Extractor operators and washers are represented by median averages of 53.5 cents and 66.5 cents per hour. Female catchers, feeders, and shakers all averaged approximately 37 cents, while median earnings in the remaining 3 jobs employing women workers ranged from 41.0 cents to 42.5 cents. Details for individual cities appear in table 2.

TABLE 1.—*Median Average Hourly Earnings in Selected Occupations in Power Laundries*[1] *in 36 Areas, Spring of 1943*

Region	Extractor operators, male	Washers, male	Catchers, female	Feeders, female	Shakers, female	Bosom-press operators, female	Collar- and cuff-press operators, female	Markers, female
Total, 36 areas	$0.535	$0.665	$0.370	$0.375	$0.365	$0.425	$0.410	$0.410
East	.585	.680	.370	.380	.370	.445	.420	.425
South	.410	.490	.240	.230	.230	.300	.270	.330
Middle West	.570	.690	.400	.410	.390	.470	.430	.440
Mountain and Pacific	.765	.945	.500	.490	.490	.570	.530	.560

[1] Excludes laundries with fewer than 9 employees.

TABLE 2.—*Average Straight-Time Hourly Earnings in Selected Occupations in Power Laundries [1] in Specified Areas, Spring of 1943 [2]*

Area	Extractor operators, male			Washers, male			Catchers, female			Feeders, female		
	Average hourly earnings	Establishment averages		Average hourly earnings	Establishment averages		Average hourly earnings	Establishment averages		Average hourly earnings	Establishment averages	
		Lowest	Highest		Lowest	Highest		Lowest	Highest		Lowest	Highest
East:												
Baltimore	$0.54	$0.40	$0.70	$0.63	$0.46	$1.00	$0.33	$0.25	$0.48	$0.33	$0.25	$0.46
Boston	.63	.40	.88	.62	.54	.89	.38	.31	.46	.38	.31	.48
Buffalo [3]	.66	.60	.71	.68	.60	.96	.51	.44	.65	.49	.42	.58
Philadelphia [4]	.53	.40	.65	.72	.48	1.00	.37	.35	.50	.37	.35	.45
Pittsburgh	.65	.62	.70	.81	.70	1.06	.36	.34	.47	.36	.34	.47
Rochester	.69	.67	.72	.76	.72	.83	(5)	(5)	(5)	.46	.43	.50
Scranton-Wilkes-Barre [3]	.54	.31	.68	.68	.60	.91	.37	.30	.41	.39	.30	.41
Washington [3]	.51	.38	.88	.62	.42	1.20	.38	.33	.48	.38	.33	.48
South:												
Atlanta	.31	.26	.44	.36	.34	.48	.18	.16	.22	.18	.16	.21
Birmingham	.31	.28	.37	.37	.20	.50	.21	.16	.22	.21	.16	.24
Dallas	.36	.22	.61	.47	.33	.80	.26	.17	.32	.27	.17	.46
Houston	.42	.35	.78	.56	.48	.69	.26	.21	.31	.26	.18	.37
Jacksonville [6]	.42	.35	.53	.52	.34	.78	.21	.13	.30	.20	.16	.30
Memphis	.34	.16	.42	.39	.22	.55	.20	.13	.28	.19	.13	.25
New Orleans	.35	.25	.47	.49	.25	.75	.22	.18	.29	.22	.18	.29
Norfolk [6]	.49	.39	.58	.53	.31	.83	.29	.20	.33	.25	.22	.31
Oklahoma City	.41	.37	.60	.65	.60	.74	.29	.26	.32	.30	.28	.32
Richmond [3]	.44	.30	.62	.48	.41	.67	.25	.20	.30	.24	.18	.29
Savannah [3]	.49	.40	.58	.49	.43	.63	.24	.17	.31	.23	.17	.31
Middle West:												
Chicago	.64	.47	.91	.72	.48	1.18	.42	.39	.56	.42	.38	.55
Cincinnati	.51	.45	.56	.68	.50	.93	.41	.40	.48	.40	.38	.46
Cleveland [6]	.64	.50	.94	.77	.55	1.13	.41	.35	.61	.41	.35	.60
Detroit	.70	.50	.88	.87	.60	1.25	.42	.40	.55	.43	.40	.55
Grand Rapids	.59	.46	.65	.76	.63	.87	.37	.32	.40	.41	.37	.46
Indianapolis [3]	.50	.40	.67	.69	.50	.80	.40	.27	.56	.41	.25	.57
Kansas City	.45	.40	.63	.58	.47	.74	.30	.30	.32	.31	.30	.32
Milwaukee [3]	.71	.50	1.01	.88	.62	1.38	.42	.35	.54	.42	.33	.54
Minneapolis-St. Paul	.56	.37	.73	.69	.59	.89	.39	.35	.40	.39	.33	.41
Omaha	.57	.39	.73	.62	.33	.88	.34	.25	.44	.33	.23	.44
St. Louis	.44	.37	.55	.53	.41	.69	.32	.25	.40	.32	.25	.38
Mountain and Pacific:												
Denver [6]	.46	.40	.55	.63	.55	.94	.35	.32	.36	.35	.33	.38
Los Angeles	.67	.53	.85	.77	.55	1.04	.46	.42	.92	.46	.42	.55
Portland, Oreg.	.84	.75	.90	1.01	.93	1.10	.48	.47	.51	.48	.44	.55
San Diego [7]	.69	.65	.78	.88	.80	1.04	.61	.49	.90	.50	.41	.55
San Francisco	.85	.66	1.13	1.02	.83	1.25	.52	.48	.55	.53	.40	.62
Seattle	.94	.81	1.00	1.13	1.04	1.50	.55	.51	.58	.54	.51	.58

See footnotes at end of table.

TABLE 2.—*Average Straight-Time Hourly Earnings in Selected Occupations in Power Laundries [1] in Specified Areas, Spring of 1943 [2]*—Continued

Area	Shakers, female			Bosom-press operators, female			Collar- and cuff-press operators, female			Markers, female		
	Average hourly earnings	Establishment averages		Average hourly earnings	Establishment averages		Average hourly earnings	Establishment averages		Average hourly earnings	Establishment averages	
		Lowest	Highest		Lowest	Highest		Lowest	Highest		Lowest	Highest
East:												
Baltimore	$0.34	$0.28	$0.48	$0.40	$0.25	$0.57	$0.40	$0.25	$0.59	$0.38	$0.28	$0.57
Boston	.37	.30	.45	.44	.36	.64	.42	.36	.50	.42	.31	.50
Buffalo [3]	.44	.40	.64	.65	.58	.67	(5)	(5)	(5)	.55	.42	.66
Philadelphia [4]	.37	.35	.50	.49	.38	.63	.46	.35	.61	.42	.37	.53
Pittsburgh	.36	.34	.47	.41	.27	.51	.41	.27	.51	.43	.37	.54
Rochester	.46	.43	.48	.64	.53	.89	.51	.41	.53	.48	.43	.52
Scranton-Wilkes-Barre [3]	.38	.34	.41	.45	.35	.67	.46	.40	.66	.40	.30	.48
Washington [3]	.36	.33	.48	.43	.35	.61	.42	.35	.53	.47	.36	.68
South:												
Atlanta	.18	.13	.35	.26	.19	.36	.22	.18	.30	.25	.22	.43
Birmingham	.21	.15	.22	.24	.16	.35	.24	.16	.35	.30	.15	.50
Dallas	.24	.17	.38	.27	.18	.45	.29	.18	.45	.35	.27	.43
Houston	.25	.18	.32	.32	.20	.48	.27	.20	.35	.34	.24	.48
Jacksonville [6]	.20	.13	.39	.24	.19	.32	.26	.20	.32	.36	.31	.44
Memphis	.20	.13	.25	.30	.14	.43	.25	.14	.43	.30	.15	.40
New Orleans	.20	.18	.34	.32	.25	.43	.29	.24	.36	.28	.15	.36
Norfolk [6]	.25	.20	.33	.31	.25	.44	.27	.22	.32	.33	.22	.43
Oklahoma City	.29	.25	.30	.33	.30	.40	.32	.28	.36	.36	.28	.46
Richmond [3]	.26	.18	.30	.31	.22	.45	.33	.21	.41	.31	.25	.38
Savannah [3]	.23	.17	.33	.23	.21	.27	(5)	(5)	(5)	.37	.34	.68
Middle West:												
Chicago	.42	.40	.62	.54	.44	.79	.55	.40	.79	.52	.41	.83
Cincinnati	.40	.40	.45	.48	.40	.70	.43	.40	.48	.44	.40	.53
Cleveland [6]	.40	.35	.55	.57	.40	.82	.58	.40	.85	.49	.38	.75
Detroit	.41	.40	.46	.51	.30	.81	.51	.40	.81	.46	.40	.65
Grand Rapids	.37	.31	.40	.44	.36	.62	.42	.40	.45	.40	.36	.47
Indianapolis [3]	.37	.28	.46	.47	.33	.59	.44	.35	.56	.45	.27	.77
Kansas City	.30	.30	.32	.39	.35	.54	.41	.35	.54	.37	.24	.75
Milwaukee [4]	.41	.35	.54	.49	.39	.67	.49	.39	.67	.45	.37	.70
Minneapolis-St. Paul	.39	.36	.40	.42	.35	.48	.41	.40	.45	.42	.36	.50
Omaha	.33	.28	.40	.39	.27	.48	.38	.26	.48	.40	.29	.45
St. Louis	.29	.24	.43	.36	.27	.43	.34	.24	.40	.35	.25	.44
Mountain and Pacific:												
Denver [4]	.33	.32	.34	.36	.34	.38	.37	.35	.38	.39	.36	.45
Los Angeles	.46	.38	.55	.57	.44	.94	.53	.45	.80	.55	.46	.75
Portland, Oreg	.47	.46	.48	.49	.47	.55	.49	.47	.55	.53	.50	.70
San Diego [7]	.55	.45	.90	.61	.49	.93	(5)	(5)	(5)	.57	.48	.64
San Francisco	.52	.46	.63	.62	.50	.72	.64	.55	1.00	.75	.64	.92
Seattle	.51	.50	.64	.57	.52	.65	.62	.60	.63	.69	.61	.74

[1] Excludes laundries with less than 9 employees.
[2] April 1943 unless otherwise noted.
[3] Data refer to a July 1943 pay-roll period.
[4] Data refer to a January 1943 pay-roll period.
[5] Insufficient information available for presentation.
[6] Data refer to a June 1943 pay-roll period.
[7] Data refer to a May 1943 pay-roll period.

INTER-AREA DIFFERENCES

On the whole, laundry workers in the Pacific Coast communities received the highest rates and those in the Southern cities the lowest. Wages of extractor operators ranged from 67 cents in Los Angeles to 94 cents in Seattle. In the other Pacific Coast cities average rates fell between these two extremes but, in most cases, were closer to the Seattle than to the Los Angeles level. Washers in the Pacific Coast cities averaged from 77 cents in Los Angeles to $1.13 in Seattle. In the Southern communities extractor operators averaged from 31 cents in Atlanta and Birmingham to 49 cents in Savannah and Norfolk.

Washers received somewhat higher earnings in the South as well as in the Pacific Coast cities; averages for specific cities ranged from 36 cents per hour in Atlanta to 65 cents in Oklahoma City. In Eastern and Middle Western cities, extractor and washer operators received intermediate rates between those in the Pacific Coast and the Southern cities.

Rates for the six occupations in which women were employed generally followed a regional pattern similar to that of rates of extractor operators and washers—they were highest in the Pacific Coast cities, lowest in the Southern cities, and intermediate in the Eastern and Midwestern localities. There were, however, appreciable differences between the Eastern and Midwestern cities in the earnings of women. The latter generally provided higher rates than the former. Thus, rates for catchers, feeders, and shakers, most frequently averaged less than 40 cents per hour in the East and 40 cents or more in the Midwest. Exceptions among the Eastern cities were Buffalo and Rochester, where rates were comparable with those in the Middle West. Among the Midwestern cities, rates in St. Louis and Kansas City were generally lower than in the other communities. Somewhat higher rates were also paid to press operators and markers in the Midwest than in the East, although the contrast is not so marked as for the other occupational groups in which women were employed.

RECENT CHANGES IN WAGE RATES

Because of the low level of wages in laundries and the resulting serious shortage of labor in many cities, the laundry industry has been affected by special regulations issued in connection with the wage-stabilization program. An order issued by the National War Labor Board on February 18, 1943,[3] authorized employers to increase wages up to 40 cents an hour without prior approval of either the National or Regional War Labor Boards. Subsequently, in a letter of September 7,[4] the Director of Economic Stabilization authorized the War Labor Board to approve certain wage increases in the laundry industry without review by his office, even though these adjustments would require price increases. Under this authority the War Labor Board may approve increases in laundry wages, up to the rate set by each regional War Labor Board as a substandard minimum rate, as well as certain increases above this minimum. Except in a few areas in the South, the substandard minimum in effect is 50 cents an hour.

As a result of these rulings, it is probable that substantial increases in laundry wages have taken place in some areas. For the most part, however, the Bureau's figures reflect only those changes made prior to the spring of 1943. The effect of subsequent wage changes will be revealed in another study of the laundry industry which is to be made by the Bureau early in 1944.

[3] National War Labor Board, General Order No. 30, February 18, 1943, amended August 23, 1943.
[4] See National War Labor Board Release No. B-978 (Sept. 15, 1943).

Union Wages and Hours in the Building Trades, July 1, 1943[1]

Summary

THE average union wage rate was $1.414 per hour on July 1, 1943, for building-trades workers in the 75 cities covered in a survey made by the Bureau of Labor Statistics. Journeyman rates averaged $1.563, while rates for helpers averaged $0.876. These averages represent an increase of 0.7 percent over 1942.

Journeyman rates ranged from 60 cents to $2.375 per hour, but almost 60 percent of the members received between $1.50 and $1.80. The rates for helpers and laborers ranged from 40 cents to $1.517, over three-fourths of the helpers earning between 60 cents and $1.10 per hour. Wage-rate increases were reported for 10.7 percent of the union members for whom comparable data for 1942 were available. The maximum straight-time weekly hours permitted by union agreements for all trades averaged 39.8 in 1943. The journeyman average was 39.7 hours; the helper and laborer average was 40.1 hours.

On all Federal construction projects, the overtime and Sunday rate is time and a half. On all other work, union agreements provided an overtime rate, on regular workdays, of time and a half for 62.4 percent of the union members and double time for 37.6 percent. Double-time provisions for Sunday work covered 62.9 percent of the members.

Scope and Method of Study

Union scales of wages and hours in the building trades have been collected by the Bureau of Labor Statistics each year since 1907. The early studies were made in 39 cities and included 14 journeyman trades and 4 helper and laborer trades. The study has been gradually extended to cover 75 cities, and now includes 27 journeyman trades and 10 helper and laborer trades. These cities are in 40 States and the District of Columbia.[2]

[1] Prepared in the Bureau's Industrial Relations Division by Donald H. Gerrish, assisted by Annette V. Sisul, under the general supervision of Don Q. Crowther.

[2] The following are the cities covered. The numerals indicate the population group in which the city is included in tables 8 and 9.

North and Pacific

Baltimore, Md. II.
Binghamton, N. Y. V.
Boston, Mass. II.
Buffalo, N. Y. II.
Butte, Mont. V.
Charleston, W. Va. V.
Chicago, Ill. I.
Cincinnati, Ohio. III.
Cleveland, Ohio. II.
Columbus, Ohio. III.
Davenport, Iowa, included in Rock Island (Ill.) district.
Dayton, Ohio. IV.
Denver, Colo. III.
Des Moines, Iowa. IV.
Detroit, Mich. I.
Duluth, Minn. IV.
Erie, Pa. IV.
Grand Rapids, Mich. IV.
Indianapolis, Ind. III.
Kansas City, Mo. III.
Los Angeles, Calif. I.
Madison, Wis. V.
Manchester, N. H. V.
Milwaukee, Wis. II.
Minneapolis, Minn. III.
Moline, Ill., included in Rock Island (Ill.) district.
Newark, N. J. III.
New Haven, Conn. IV.
New York, N. Y. I.
Omaha, Nebr. IV.
Peoria, Ill. IV.
Philadelphia, Pa. I.
Pittsburgh, Pa. II.
Portland, Maine. V.
Portland, Oreg. III.
Providence, R. I. III.
Reading, Pa. IV.
Rochester, N. Y. III.
Rock Island (Ill.) district. IV.
St. Louis, Mo. II.
St. Paul, Minn. III.
Salt Lake City, Utah. IV.
San Francisco, Calif. II.
Scranton, Pa. IV.
Seattle, Wash. III.
South Bend, Ind. IV.
Spokane, Wash. IV.
Springfield, Mass. IV.
Toledo, Ohio. III.
Washington, D. C. II.
Wichita, Kans. IV.
Worcester, Mass. IV.
York, Pa. V.
Youngstown, Ohio. IV.

South and Southwest

Atlanta, Ga. III.
Birmingham, Ala. III.
Charleston, S. C. V.
Charlotte, N. C. IV.
Dallas, Tex. III.
El Paso, Tex. V.
Houston, Tex. III.
Jackson, Miss. V.
Jacksonville, Fla. IV.
Little Rock, Ark. V.
Louisville, Ky. III.
Memphis, Tenn. III.
Mobile, Ala. V.
Nashville, Tenn. IV.
New Orleans, La. III.
Norfolk, Va. IV.
Oklahoma City, Okla. IV.
Phoenix, Ariz. V.
Richmond, Va. IV.
San Antonio, Tex. III.
Tampa, Fla. IV.

Rates for the earlier years were collected as of May 15. Since many of the annual wage negotiations during more recent years were not concluded by that date, from 1938 to 1941 rates were collected as of June 1. In 1942 and 1943, because of the Building Construction Stabilization Agreement sponsored by the Government for the purpose of stabilizing building-trades wage rates as of July 1, 1942, for the duration of the war,[3] rates were collected as of July 1.

Field representatives of the Bureau obtained the data directly from officials of local building-trades unions in the cities covered. Each scale quoted was further checked by comparison with signed agreements when copies were available. As far as possible the scales collected were those actually in effect on July 1. Scales in negotiation before the Wage Adjustment Board for the building-construction industry or the National War Labor Board were further checked with these agencies before the data were tabulated, so that any increases made retroactive to July 1 would be reflected in this report. The 1943 survey included 2,802 rate quotations covering 607,396 union members, 78 percent of whom were journeymen and 22 percent helpers and laborers.

Union scale.—A union scale is a wage rate or schedule of hours agreed to by an employer (or group of employers) and a labor organization, for persons who are actually working or would be working if there were work to be had in that locality. A union scale usually fixes a limit in one direction; that is, it provides a minimum wage and maximum hours of work, with specific provisions for overtime.

Apprentices and foremen.—A young person working in a trade for a definite number of years, for the purpose of learning the trade, and receiving instruction as an element of compensation, is considered an apprentice. Scales for apprentices have not been included, but scales for helpers in a number of trades were collected. In some trades the work of helpers is performed, at least in part, by apprentices. Whenever it was found that helpers' work was done largely by apprentices, the scales for such helpers were omitted. No rates were collected for strictly supervising foremen or for individuals who were paid unusual rates because of some personal qualification as distinct from the usual trade qualifications.

Averages.—The averages for each trade given in this report are weighted according to the number of members in the various local unions. In cities where different union scales (either of wage rates or hours) for the same trade were in existence for public and private work both rates were used, weighted according to the number of union members working at each rate. In some cases the rate on public work may have been either higher or lower than that on private work, owing to wage adjustments ordered by the Wage Adjustment Board which were not applicable to private construction work.

Index numbers.—In the series of index numbers (1929=100) the percentage change from year to year is based on aggregates computed from the quotations of the unions which furnished reports for identical occupations in 2 consecutive years. The membership weights in both of the aggregates used in each year-to-year comparison are those reported for the second year. The index for each year is computed by multiplying the index for the preceding year by the ratio of the

[3] Memorandum of agreement between the Building Trades Department of the A. F. of L. and various Government agencies in charge of war construction, released May 22, 1942. See footnote 4, p. 166.

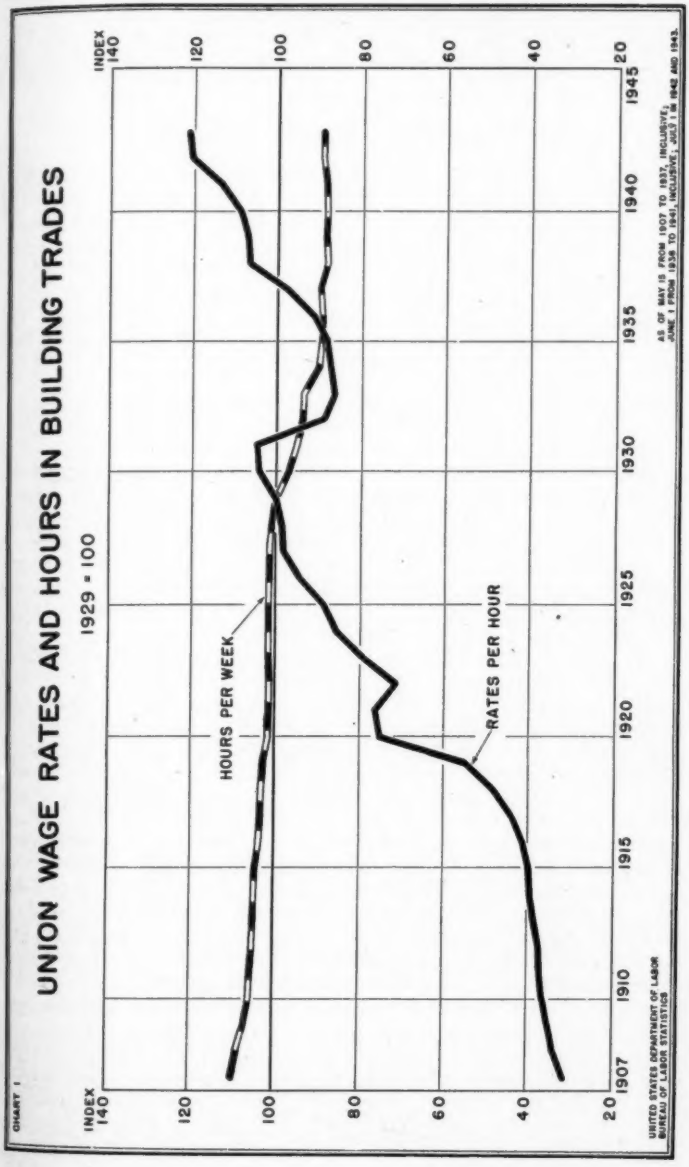


CHART I
UNION WAGE RATES AND HOURS IN BUILDING TRADES
1929 = 100
INDEX
140
120
100
80
60
40
20
HOURS PER WEEK
RATES PER HOUR
1907
1910
1915
1920
1925
1930
1935
1940
1945
AS OF MAY 15 FROM 1907 TO 1937, INCLUSIVE;
JUNE 1 FROM 1938 TO 1941, INCLUSIVE; JULY 1 IN 1942 AND 1943.
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

aggregates so obtained. The index numbers were revised on this basis in 1936 in order to eliminate the influence of changes in union membership which obscure the real changes in wages and hours.

Caution.—For the trend of union rates, the table of indexes (table 1) should be consulted; for a comparison of wage rates between trades at a given time, the table of averages (table 2) should be used.

Trend of Union Wage Rates

The average hourly wage rates for union workers in the building trades were increased by only 0.7 percent during the period July 1, 1942, to July 1, 1943 (see table 1). This is the smallest percentage increase recorded for all building trades since 1939, when the advance from the preceding year was about the same as in 1943. This relatively small increase in hourly wage rates in wartime reflects the effect of the Wage Stabilization Agreement between the contracting agencies of the United States Government and the Building Trades Department of the American Federation of Labor.[4]

TABLE 1.—*Indexes of Union Hourly Wage Rates in all Building Trades, 1907–43*

[1929=100]

Year	All trades	Journeymen	Helpers and laborers	Year	All trades	Journeymen	Helpers and laborers
1907	31.5	31.7	30.7	1926	94.8	94.7	95.0
1908	33.5	33.8	32.1	1927	98.1	97.9	97.3
1909	35.1	35.5	33.2	1928	98.7	98.7	98.1
1910	36.5	37.0	34.3	1929	100.0	100.0	100.0
1911	37.1	37.6	34.5	1930	104.2	104.1	103.1
1912	37.9	38.5	34.8	1931	104.5	104.5	104.5
1913	38.8	39.4	35.8	1932	89.3	89.3	89.2
1914	39.6	40.3	36.2	1933	86.8	86.9	88.2
1915	39.9	40.6	36.5	1934	87.4	87.4	87.7
1916	41.2	42.0	37.7	1935	88.4	88.4	88.2
1917	43.8	44.3	41.4	1936	91.6	91.3	93.4
1918	48.6	49.0	48.0	1937	98.0	97.6	100.1
1919	55.7	56.0	55.5	1938	106.7	106.1	111.7
1920	75.2	74.9	80.5	1939	107.4	106.8	112.6
1921	76.6	76.3	81.3	1940	109.1	108.3	114.8
1922	71.8	71.9	74.0	1941	113.1	112.1	120.3
1923	79.4	79.2	78.5	1942	120.2	118.4	122.3
1924	85.7	85.6	84.9	1943	121.0	119.1	123.9
1925	89.0	88.8	87.7				

Journeymen received average increases of 0.6 percent; helpers and laborers, 1.2 percent. These small increases are in marked contrast to the increases received during the 13-month period June 1, 1941, to July 1, 1942, when journeyman rates were increased 5.6 percent and helper and laborer rates, 10.0 percent. Since 1929 (the base period of the indexes), average rates for journeymen increased 19.1 percent; helpers and laborers, 33.9 percent; and the combined groups, 21.0.

[4] The contracting agencies of the United States Government and the Building Trades Department of the A. F. of L. agreed that on all war construction work in the continental United States the wages paid under collective-bargaining agreements as of July 1, 1942, should remain in full force and effect for a period of at least 1 year, subject to annual renewal for the duration of the war. All renewals were to contain the rates paid as of July 1, 1942, unless specifically declared otherwise by an especially established Wage Adjustment Board, composed of representatives from the building-trades unions and the contracting agencies of the United States, with the Assistant Secretary of Labor acting as chairman. In September 1943, the Wage Adjustment Board was reconstituted as a tripartite body and was given authority by the National War Labor Board to approve or disapprove wage adjustments in private construction work also, in line with the national wage-stabilization policy.

Average Hourly Wage Rates

The average union wage rate for journeymen in 75 cities surveyed on July 1, 1943, was $1.563 per hour. Helpers and laborers averaged $0.876 per hour (see table 2), and the average for journeymen and helpers combined was $1.414.

The bricklayers' average of $1.788 was the highest for any trade. The stonecutters, with an average of $1.755 were next, followed closely by the plasterers with $1.749 per hour. Twelve other trades had averages higher than that for all journeymen ($1.563). Only four journeyman trades had average rates below $1.50 per hour, composition roofers having the lowest ($1.403).

Among the helpers and laborers, the elevator constructors' helpers' average ($1.207) was highest, followed very closely by the steam and sprinkler fitters' helpers ($1.204). Four other trades in this group had averages of over $1.00. The composition roofers' helpers' average ($0.825) was the lowest.

Journeyman rates ranged from 60 cents per hour for composition roofers (kettlemen) in Charlotte (N. C.) to $2.375 for spray painters in Birmingham (Ala.). Over 70 percent of the journeymen had rates of $1.50 or more, almost three-fifths being between $1.50 and $1.80. Rates of $2.00 or more per hour were reported for 5.7 percent of the union journeymen; but less than a tenth of 1 percent had scales under $1.00. The most frequently reported rates, irrespective of members covered, were $1.50, $1.625, and $1.75 per hour.

Sixteen journeyman trades reported over three-fourths of their members earning $1.50 per hour or more, while all except three trades had a majority of their members earning $1.50 or over per hour. There were only five trades that did not have some rates of at least $2.00 per hour and only seven with any rates of less than $1.00. Paperhangers and mosaic and terrazzo workers had no rates of $1.80 or more, while boilermakers, bricklayers, machinists, plasterers, and structural-iron workers had no rates of less than $1.20.

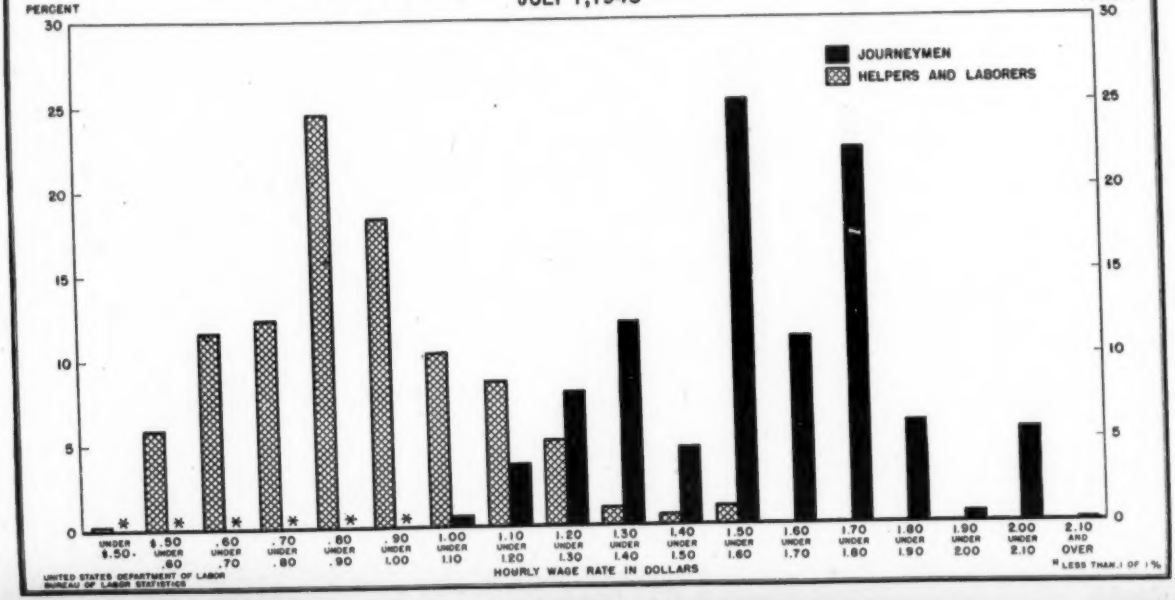
Helper and laborer rates ranged from 40 cents per hour for building laborers in Jackson (Miss.) to $1.517 for plasterers' laborers in Brooklyn. Over three-fourths of the helpers received rates between 60 cents and $1.10, more than 40 percent being between 80 cents and $1.00. Of the helpers and laborers, 2.7 percent had rates of $1.30 per hour or more, and only 0.2 percent, rates below 50 cents.

Six of the ten helper trades reported at least two-thirds of their members earning more than $1.00 per hour. Two trades—building laborers and composition roofers' helpers—had less than a majority of the members earning over $1.00. The only trade reporting any members (0.3 percent) at less than 50 cents per hour was that of building laborers. Over 75 percent of their rates were concentrated in the $0.60–$1.00 range. Elevator constructors' helpers, marble setters' helpers, and terrazzo workers' helpers had no rates of less than $0.70 and only four trades had any members in the 50- to 60-cent range. One trade—composition roofers' helpers—had no members earning as much as $1.10 per hour. Steam and sprinkler fitters' helpers, with 41.4 percent of their members earning between $1.50 and $1.60 per hour, was the only trade with a substantial percentage of members in this range. This was due exclusively to the influence of New York, where almost all of the members of this craft earned

CHART 2

DISTRIBUTION OF UNION BUILDING TRADES WORKERS ACCORDING TO HOURLY WAGE RATES

JULY 1, 1943



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

$1.50 per hour. Over 40 percent of the steam and sprinkler fitter helper members were reported from the New York area.

TABLE 2.—*Distribution of Union Members in the Building Trades by Hourly Wage Rates, July 1, 1943*

Trade	Average rate per hour	Percentage of union journeymen whose rates (in cents) per hour were—												
		Under 100	100 and under 110	110 and under 120	120 and under 130	130 and under 140	140 and under 150	150 and under 160	160 and under 170	170 and under 180	180 and under 190	190 and under 200	200 and under 210	210 and over
Journeymen	$1.563	(1)	0.6	3.7	8.0	12.1	4.6	25.2	11.1	22.3	6.1	0.6	5.6	0.1
Asbestos workers	1.575	0.1	6.5	2.7	.7	2.4	1.3	35.3	24.5	15.8	1.8	.....	8.9	.....
Boilermakers	1.656	.....	.....	.....	(1)	(1)	.....	25.8	42.0	23.7	.....	.....	8.5	.....
Bricklayers	1.788	.....	.....	.....	.4	.3	.....	7.8	20.8	35.4	1.1	5.5	28.7	.....
Carpenters	1.495	(1)	.3	6.7	10.6	19.4	7.3	26.2	4.2	12.3	11.9	.....	1.1	.....
Cement finishers	1.523	.....	.2	.....	6.0	15.9	6.6	48.0	3.8	11.2	6.9	.....	1.4	.....
Electricians, inside wiremen	1.671	.....	.....	1.5	1.1	6.9	.2	23.1	14.7	31.5	4.7	.....	16.3	.....
Elevator constructors	1.635	.....	.....	.4	.2	5.8	15.4	22.7	24.2	15.8	5.7	4.9	4.9	.....
Glaziers	1.497	1.5	3.1	3.2	19.7	11.4	11.9	13.7	10.2	1.7	23.6	.....	.....	.....
Granite cutters	1.508	.....	.....	2.6	20.9	.4	.....	62.7	10.9	.....	.3	.....	2.2	.....
Lathers	1.689	.....	.1	.2	2.4	.7	2.5	25.2	18.2	23.5	20.2	2.1	.1	4.8
Machinists	1.525	.....	.....	.....	12.7	5.0	12.4	32.4	13.6	23.0	.9	.....	.....	.....
Marble setters	1.604	.....	.....	.9	1.3	10.6	.....	35.9	12.5	35.4	.....	.....	3.4	.....
Mosaic and terrazzo workers	1.554	.....	.....	.2	8.4	10.9	7.2	30.1	10.1	33.1	.....	.....	.....	.....
Painters	1.519	(1)	1.7	3.5	14.2	12.3	3.9	22.2	1.0	40.2	.1	.....	.9	(1)
Paperhangers	1.503	.1	1.4	3.1	8.7	23.9	4.2	24.8	.....	33.8	.....	.....	.....	.....
Plasterers	1.749	.....	.....	.....	.5	4.2	.1	20.1	21.0	14.5	4.7	.....	34.9	.....
Plumbers and gas fitters	1.649	.....	.....	1.1	.....	.8	.....	30.1	28.2	31.5	.....	.....	8.3	.....
Rodmen	1.513	.....	.2	.....	15.6	19.0	3.7	29.4	7.6	20.9	1.8	.....	1.8	.....
Roofers, composition	1.403	.9	8.4	10.7	10.2	21.2	10.7	15.5	5.1	13.0	2.1	.5	1.7	.....
Roofers, slate and tile	1.464	.....	3.0	11.0	16.1	17.0	7.9	12.0	4.4	21.6	3.6	.....	3.4	.....
Sheet-metal workers	1.570	.....	.....	.2	7.3	7.2	7.3	36.7	18.3	13.6	.....	.....	9.4	.....
Sign painters	1.633	.....	1.8	.7	8.3	6.3	3.1	17.1	20.9	21.9	13.5	.....	3.2	3.2
Steam and sprinkler fitters	1.643	.....	.6	.3	2.0	.7	.....	22.0	34.4	34.9	.....	.....	5.1	.....
Stonecutters	1.755	.....	1.3	.8	5.9	8.5	.....	4.6	16.8	13.7	.....	34.7	13.7	.....
Stonemasons	1.605	.....	.7	.....	11.7	1.2	3.0	10.8	37.8	29.1	1.6	.....	4.1	.....
Structural-iron workers	1.650	.....	.....	.....	2.2	.7	.8	28.3	27.7	29.1	2.2	4.7	4.3	.....
Tile layers	1.511	1.0	.....	.5	5.4	7.3	16.4	42.2	13.1	14.0	.1	.....	.....	.....

Trade	Average rate per hour	Percentage of union helpers and laborers whose rates (in cents) per hour were—											
		Under 50	50 and under 60	60 and under 70	70 and under 80	80 and under 90	90 and under 100	100 and under 110	110 and under 120	120 and under 130	130 and under 140	140 and under 150	150 and under 160
Helpers and laborers	$0.876	0.2	5.9	11.7	12.4	24.6	18.4	10.3	8.7	5.1	1.0	0.6	1.1
Bricklayers' tenders	.984	.....	1.1	5.7	8.4	12.4	16.3	21.9	17.0	15.7	.3	1.2	.....
Building laborers	.826	.3	7.6	13.2	13.9	29.5	20.2	7.6	5.3	2.4	(1)	.....	.....
Composition roofers' helpers	.825	.....	9.2	9.6	17.2	36.5	1.4	26.1	.....	.....	.....	.....	.....
Elevator constructors' helpers	1.207	.....	.....	.....	.1	.2	2.6	15.7	21.4	38.6	9.0	12.4	.....
Marble setters' helpers	1.061	.....	.....	.....	2.0	6.3	25.0	25.7	20.7	.8	19.5	.....	.....
Plasterers' laborers	1.075	.....	.....	11.2	6.9	5.3	8.7	14.5	15.4	22.2	5.4	6.4	4.0
Plumbers' laborers	.957	.....	1.7	13.5	13.9	7.6	11.8	17.5	28.4	.....	.....	.....	5.6
Steam and sprinkler fitters' helpers	1.204	.....	.....	1.4	3.6	12.2	11.3	6.8	23.3	.....	.....	.....	41.4
Terrazzo workers' helpers	1.161	.....	.....	.....	1.4	2.6	3.7	20.2	22.7	7.6	41.8	.....	.....
Tile layers' helpers	1.085	.....	.....	1.5	4.1	6.4	20.3	17.0	18.9	.....	31.8	.....	.....

[1] Less than a tenth of 1 percent.

Changes in Union Wage Rates Between 1942 and 1943 [5]

Almost 89 percent of the quotations, covering over 89 percent of the union members, remained unchanged between 1942 and 1943 (see table 3), only about 10 out of every 100 union members benefiting by advanced scales. There was one rate reduction—a decrease from $2.25 to $2.00 per hour for slate and tile roofers in New York.

The greatest proportion of increased scales for journeymen, 19.8 percent of the quotations, was reported by the elevator constructors. This comparatively large percentage was the result of the industry-wide agreement which specifies that the scale in each city shall be equal to the average of the five highest of the seven principal building trades in the respective city. It is customary for the elevator constructors to wait until several trades have completed negotiations before establishing a new scale for themselves. Many trades changed their scales in the late spring of 1942 and several elevator constructor locals were not able to establish new scales until after July 1, 1942.

Machinists (18.4 percent), glaziers (15.8 percent), and cement finishers (15.6 percent) were the only other journeyman trades with over 15 percent of their quotations indicating increases in wage rates. Lathers, granite cutters, and stonecutters reported only one increase each in scales.

About 16 percent of the helper quotations, covering almost 15 percent of the union members, showed increases. Nearly a third of the quotations for marble setters' helpers, about a fourth of those for elevator constructors' and tile layers' helpers, and about a fifth of those for terrazzo workers' helpers were higher than in 1942. Steam and sprinkler fitters' helpers had the smallest percentage (4.7) of quotations showing increases.

As the number of union members covered by a quotation may range from a few to several thousand, there is ordinarily very little relationship between the percentage of quotations showing increases and the percentage of members benefiting by these increases. Among the journeymen, machinists had the largest proportion of their members receiving increases (26.9 percent), followed closely by the painters (26.1 percent), elevator constructors (25.9 percent), and tile layers (24.0 percent). Only five other trades had as many as 10 percent of their members getting raises in scales. The stonecutters were lowest, with increases for only 0.5 percent of their members.

The large percentage of machinists with higher scales was due to increases in Louisville and Los Angeles, where two-thirds of the members who obtained raises were employed. An increase in wage rates for painters in New York was the predominant factor accounting for the substantial percentage of members having increases in that trade.

Increases were obtained for about 25 percent of the marble setters' helpers, elevator constructors' helpers, and tile layers' helpers. Raises

[5] Certain anomalies enter into a comparison of average rates between 2 years when such averages reflect not only the actual rates provided for in the agreements but the number of union members for that year in each local union covered by the reported rates. By and large, it would be expected that a general increase in actual rates would be accompanied by a corresponding increase in the average rate paid to union members, but if union membership increases most (or decreases least) in the lower-paid crafts or in areas with less-than-average rates, the average of the rates paid to all union members may not increase correspondingly, or may even show a decrease. Conversely, the average rate may increase in spite of a downward swing in actual rates, if union membership declines sufficiently in the lower-paid crafts or in areas where lower-than-average rates are paid.

Because the averages do not accurately reflect changes from year to year, no table comparing 1942 and 1943 averages is included in this report. For the trend of actual union rates, the table of indexes (table 1) should be consulted, since these are so computed as to eliminate the effect of fluctuating membership at various rates. The current averages, on the other hand, best serve for comparison of the general level of wage rates between trades, or between cities and regions at the time the survey was made.

for steam and sprinkler fitters' helpers in New York and Providence, both cities having big memberships, account for the large percentage (19.1) of members in this trade receiving higher scales. Each of the helper and laborer trades showed increases for over 7.0 percent of their members.

TABLE 3.—*Number of Changes in Union Wage-Rate Quotations and Percent of Members Affected, July 1, 1943, Compared with July 1, 1942*

Trade	Number of quotations comparable with 1942	Number of quotations showing—			Percent of union members affected		
		Increase	Decrease	No change	Increase	Decrease	No change
All building trades	2,777	313	1	2,463	10.7	(1)	89.3
Journeymen	2,170	217	1	1,952	9.5	(1)	90.5
Asbestos workers	71	4	.....	67	6.7	.....	93.3
Boilermakers	47	4	.....	43	2.8	.....	97.2
Bricklayers	89	10	.....	79	6.6	.....	93.4
Carpenters	123	13	.....	110	6.3	.....	93.7
Cement finishers	90	14	.....	76	9.0	.....	91.0
Electricians, inside wiremen	92	7	.....	85	5.8	.....	94.2
Elevator constructors	126	25	.....	101	25.9	.....	74.1
Glaziers	76	12	.....	64	11.2	.....	88.8
Granite cutters	15	1	.....	14	1.3	.....	98.7
Lathers	79	1	.....	78	2.4	.....	97.6
Machinists	38	7	.....	31	26.9	.....	73.1
Marble setters	66	5	.....	61	11.6	.....	88.4
Mosaic and terrazzo workers	57	10	.....	47	18.0	.....	82.0
Painters	183	23	.....	160	26.1	.....	73.9
Paperhangers	74	8	.....	66	4.0	.....	96.0
Plasterers	90	4	.....	86	3.6	.....	96.4
Plumbers and gas fitters	84	6	.....	78	7.3	.....	92.7
Rodmen	73	5	.....	68	7.4	.....	92.6
Roofers, composition	111	9	.....	102	8.3	.....	91.7
Roofers, slate and tile	65	5	1	59	15.3	1.1	83.6
Sheet-metal workers	74	8	.....	66	7.2	.....	92.8
Sign painters	76	5	.....	71	5.4	.....	94.6
Steam and sprinkler fitters	113	9	.....	104	10.7	.....	89.3
Stonecutters	28	1	.....	27	.5	.....	99.5
Stonemasons	60	3	.....	57	6.0	.....	94.0
Structural-iron workers	93	7	.....	86	5.8	.....	94.2
Tile layers	77	11	.....	66	24.0	.....	76.0
Helpers and laborers	607	90	0	511	14.9	0	85.1
Bricklayers' tenders	96	13	.....	83	8.0	.....	92.0
Building laborers	89	13	.....	76	16.5	.....	83.5
Composition roofers' helpers	28	3	.....	25	7.8	.....	92.2
Elevator constructors' helpers	88	20	.....	68	25.4	.....	74.6
Marble setters' helpers	36	11	.....	25	25.8	.....	74.2
Plasterers' laborers	86	9	.....	77	7.3	.....	92.7
Plumbers' laborers	45	5	.....	40	7.6	.....	92.4
Steam and sprinkler fitters' helpers	43	2	.....	41	19.1	.....	80.9
Terrazzo workers' helpers	48	9	.....	39	12.9	.....	87.1
Tile layers' helpers	48	11	.....	37	24.2	.....	75.8

[1] Less than a tenth of 1 percent.

The wage increases obtained during the year were relatively small except in Charleston (S. C.), where several journeyman trades had increases in their rates of as much as 82 percent; the 55-cent-per-hour rate previously in effect was substandard for building-construction journeymen. Almost two-thirds of the quotations showing increases, which included 7.9 percent of the total union members with comparable rates for both years, provided raises of less than 10 percent (see table 4). About 25 percent of these quotations provided raises of less than 5 percent, while only 15 percent showed raises of over 15 percent. Practically all of the members who had increases received

less than 15 percent. Only 0.5 percent of the members benefited by raises of 20 percent or more.

Over two-thirds of the journeyman quotations showing increases, which included over 8 percent of the union members, indicated raises of less than 10 percent. Only slightly over a tenth of the quotations, covering 0.2 percent of the members, provided raises of 20 percent or more.

Among the less skilled trades, almost three-fifths of the quotations showing increases were for less than 10 percent, and only about one-eighth, affecting 1.6 percent of the members were for increases of 20 percent or more. A substantial percentage of the elevator constructors' helpers and tile layers' helpers had increases of less than 5 percent (20.7 and 15.3 percent, respectively). None of the elevator constructors' helpers had increases of as much as 10 percent, although 6 of the 10 helper trades reported increases of 20 percent or more for a few members.

TABLE 4.—*Number of Increases in Union Wage-Rate Quotations, and Percent of Members Affected, by Percent of Increase, July 1, 1943, Compared with July 1, 1942*

Trade	Number of quotations showing increases of—					Percent of total members affected by increases of—				
	Less than 5 percent	5 and under 10 percent	10 and under 15 percent	15 and under 20 percent	20 percent and over	Less than 5 percent	5 and under 10 percent	10 and under 15 percent	15 and under 20 percent	20 percent and over
All building trades	78	126	62	12	35	2.9	5.0	2.0	0.3	0.5
Journeymen	58	89	43	4	23	3.1	5.1	1.1	(1)	.2
Asbestos workers	1	3				1.8	4.9			
Boilermakers	1	1	1	1		.4	1.8	.6	(1)	
Bricklayers	4	5	1			2.3	4.2	.1		
Carpenters	2	5	4	1	1	2.1	2.5	1.6	.1	(1)
Cement finishers	2	2	2	1	7	.7	1.8	1.9	.1	4.5
Electricians, inside wiremen	2	2	3			3.7	2.0	.1		
Elevator constructors	15	10				23.2	2.7			
Glaziers	2	2	6		2	3.6	3.1	4.0		.5
Granite cutters	1					1.3				
Lathers	1					2.4				
Machinists	1	2	1		3	11.1	4.5	6.7		4.6
Marble setters	1	4				3.2	8.4			
Mosaic and terrazzo workers	1	6	1		2	2.5	6.9	3.7		4.9
Painters	2	12	7		2	5.2	19.6	1.1		.2
Paperhangers	1	3	3		1	.9	2.3	.8		(1)
Plasterers	2	1			1	2.0	1.5			(1)
Plumbers and gas fitters	2	3	1			4.5	2.3	.5		
Rodmen	1	2	2			.2	2.4	4.8		
Roofers, composition	1	5	3			.8	6.6	.9		
Roofers, slate and tile		3	2				9.3	6.0		
Sheet-metal workers	4	1	1	1	1	6.9	.1	.1	(1)	.1
Sign painters	1	1	2		1	2.4	.2	2.6		.3
Steam and sprinkler fitters	3	5	1			5.3	5.2	.2		
Stonecutters		1					.5			
Stonemasons	1	2				2.2	3.8			
Structural-iron workers	2	3	1		1	.9	4.1	.7		.1
Tile layers	4	5	1		1	18.6	4.3	.1		1.0
Helpers and laborers	20	37	19	8	12	2.0	4.8	5.2	1.3	1.6
Bricklayers' tenders	2	2	5	2	2	3.5	.6	2.5	.9	.5
Building laborers	1	4	4	1	3	1.5	5.6	6.2	1.5	1.7
Composition roofers' helpers		1	1	1			2.9	3.3	1.6	
Elevator constructors' helpers	12	8				20.7	4.7			
Marble setters' helpers	1	6	3	1		7.8	7.8	9.8	.4	
Plasterers' laborers	1	2	1	1	4	1.8	1.0	.6	1.3	2.6
Plumbers' laborers		2	2		1		4.1	2.4		1.1
Steam and sprinkler fitters' helpers		1			1		9.6			9.5
Terrazzo workers' helpers	2	5	1	1		1.2	9.8	.7	1.2	
Tile layers' helpers	1	6	2	1	1	15.3	4.7	3.6	.2	.4

[1] Less than a tenth of 1 percent.

Average Rate Changes in Each City[6]

The greatest average increase in wage scales for any city (7.8 percent), during the period from July 1, 1942, to July 1, 1943, was received by union members in Charleston (S. C.). In this city rates were increased from 55 cents to $1.00 per hour for several journeyman trades and from 40 to 50 cents per hour for building laborers. No other city that reported scales for both journeymen and helpers had an increase of as much as 5.0 percent for the combined trades.

TABLE 5.—*Percent of Change in Union Building-Trades Wage Rates in Each City, July 1, 1942, to July 1, 1943*

City	Percent of increase			City	Percent of increase		
	All trades	Journeymen	Helpers and laborers		All trades	Journeymen	Helpers and laborers
All cities	0.7	0.6	1.2	Mobile, Ala	1.0	1.3	0
Atlanta, Ga	.4	0	19.5	Nashville, Tenn	2.4	.4	16.8
Baltimore, Md	1.0	.6	4.9	Newark, N. J	.8	.9	0
Binghamton, N. Y	0	0	0	New Haven, Conn	0	0	0
Birmingham, Ala	(1)	(1)	(1)	New Orleans, La	.3	.2	.4
Boston, Mass	0	0	0	New York, N. Y	1.2	1.2	.7
Buffalo, N. Y	.2	.2	0	Norfolk, Va	1.4	1.6	0
Butte, Mont	1.2	1.6	0	Oklahoma City, Okla	.1	.1	0
Charleston, S. C	7.8	5.1	23.8	Omaha, Nebr	.1	0	.2
Charleston, W. Va	(1)	(1)	0	Peoria, Ill	(1)	.1	0
Charlotte, N. C	.6	.6	1.8	Philadelphia, Pa	.8	1.0	(1)
Chicago, Ill	(1)	(1)	.1	Phoenix, Ariz	.1	.2	(1)
Cincinnati, Ohio	.4	.4	0	Pittsburgh, Pa	(1)	(1)	(1)
Cleveland, Ohio	.6	.4	2.9	Portland, Maine	.2	.2	0
Columbus, Ohio	0	0	0	Portland, Oreg	(1)	0	(1)
Dallas, Tex	1.1	.5	12.4	Providence, R. I	1.9	.2	6.1
Dayton, Ohio	0	0	0	Reading, Pa	2.3	2.6	0
Denver, Colo	.4	.5	0	Richmond, Va	.8	.9	0
Des Moines, Iowa	.7	.1	6.5	Rochester, N. Y	.6	.7	0
Detroit, Mich	0	0	0	Rock Island (Ill.) district[4]	1.2	(1)	8.2
Duluth, Minn	0	0	0	St. Louis, Mo	0	0	0
El Paso, Tex	.5	1.1	(2)	St. Paul, Minn	(1)	(1)	(1)
Erie, Pa	1	.1	0	Salt Lake City, Utah	4.1	.6	9.0
Grand Rapids, Mich	2	.2	0	San Antonio, Tex	.6	.7	0
Houston, Tex	.6	.6	0	San Francisco, Calif	1.4	1.6	.1
Indianapolis, Ind	.1	.1	.1	Scranton, Pa	4.5	5.7	0
Jackson, Miss	[3] 6.0	6.0	(2)	Seattle, Wash	4.4	4.3	6.2
Jacksonville, Fla	0	0	0	South Bend, Ind	(1)	(1)	.1
Kansas City, Mo	.1	.1	0	Spokane, Wash	.6	.7	0
Little Rock, Ark	[3] 0	0	(2)	Springfield, Mass	.2	.2	(1)
Los Angeles, Calif	.1	.1	.1	Tampa, Fla	.2	.2	.1
Louisville, Ky	.3	.4	(1)	Toledo, Ohio	.1	.1	0
Madison, Wis	.1	.1	0	Washington, D. C	.5	.1	4.9
Manchester, N. H	.2	.2	0	Wichita, Kans	1.1	1.3	0
Memphis, Tenn	2.6	.8	7.8	Worcester, Mass	0	0	0
Milwaukee, Wis	(1)	0	.1	York, Pa	.1	0	5.7
Minneapolis, Minn	(1)	(1)	.1	Youngstown, Ohio	0	0	0

[1] Less than a tenth of 1 percent.
[2] Insufficient quotations having comparable data for both years.
[3] No helper or laborer quotations obtained.
[4] Includes Rock Island and Moline, Ill., and Davenport, Iowa.

[6] These net changes are based on the specific rates for 1942 and 1943, weighted by the membership for each union in 1943. Only those trades showing comparable data for both years are included. Inasmuch as building-trades wage rates tend to be changed by additions of either 12½ or 10 cents per hour, specific increases for 1943 will reflect larger percentage changes among those trades with comparatively lower actual scales; e. g., if the carpenters in city A changed their scale from $1.00 to $1.12½ an increase of 12½ percent is registered, while if in city B the increase is from $1.50 to $1.625, the percentage change is only 8⅓ percent. For this reason those cities which had lower scales tend to show greater percentage increases than those which had higher scales. Both table 5 and table 6 should be consulted in making comparisons between cities.

In addition to Charleston (S. C.), journeymen in Jackson (Miss.) and Scranton (Pa.) were the only ones to receive increases of as much as 5.0 percent. Seventeen cities reported no change in scales and 43 cities reported increases of less than 1.0 percent for journeymen. The highest increases among helpers and laborers were in Charleston (S. C.), 23.8 percent; Atlanta (Ga.), 19.5 percent; Nashville (Tenn.), 16.8 percent; and Dallas (Tex.), 12.4 percent. In 36 cities, no changes in rates occurred for helpers and in 19 cities raises were less than 1.0 percent.

Average Wage Rates in Each City[7]

Newark, with an average of $1.889 per hour on July 1, 1943, retained the lead in journeyman averages for the second successive year. New York's average ($1.861) was second, followed by Pittsburgh ($1.733) and Chicago ($1.718). Washington, Cleveland, Youngstown, Buffalo, Butte, Philadelphia, Detroit, Toledo, and Rochester all exceeded the average for all cities ($1.563). Eleven other cities had rates above $1.50. Only seven cities had rates below $1.25, York and Charlotte having the lowest—$1.134 and $1.132 respectively. Charlotte's average was lowest in both 1943 and 1942.

Newark also had the highest average among the helper and laborer groups ($1.238), followed closely by New York ($1.217). Chicago's average ($1.108) was third, and in nine other cities the average for helpers and laborers exceeded $1.00 an hour: Cleveland, Milwaukee, Boston, Seattle, San Francisco, South Bend, Spokane, and Peoria. Averages of less than 75 cents were recorded for only 19 cities, Charleston (S. C.) having the lowest ($0.514).

TABLE 6.—*Average Union Hourly Wage Rates in the Building Trades, by Cities and Population Groups, July 1, 1943*

City and population group	Average hourly rate	City and population group	Average hourly rate
Journeymen		*Journeymen*—Continued	
Population group I (over 1,000,000):		Population group III (250,000 to 500,000)—Continued.	
New York, N. Y.	$1.861	Rochester, N. Y.	$1.[illegible]
Chicago, Ill.	1.718	Cincinnati, Ohio	1.[illegible]
Average for group I	*1.685*	Seattle, Wash.	1.[illegible]
Philadelphia, Pa.	1.579	Kansas City, Mo.	1.[illegible]
Detroit, Mich.	1.577	Indianapolis, Ind.	1.[illegible]
Los Angeles, Calif.	1.450	Denver, Colo.	1.[illegible]
Population group II (500,000 to 1,000,000):		*Average for group III*	*1.[illegible]*
Pittsburgh, Pa.	1.733	Columbus, Ohio	1.477
Washington, D. C.	1.687	Louisville, Ky.	1.[illegible]
Buffalo, N. Y.	1.625	Houston, Tex.	1.[illegible]
Cleveland, Ohio	1.606	St. Paul, Minn.	1.[illegible]
Average for group II	*1.587*	Birmingham, Ala.	1.[illegible]
San Francisco, Calif.	1.557	Portland, Oreg.	1.[illegible]
St. Louis, Mo.	1.539	Minneapolis, Minn.	1.411
Boston, Mass.	1.537	Providence, R. I.	1.[illegible]
Baltimore, Md.	1.478	Dallas, Tex.	1.[illegible]
Milwaukee, Wis.	1.420	Atlanta, Ga.	1.[illegible]
Population group III (250,000 to 500,000):		Memphis, Tenn.	1.[illegible]
Newark, N. J.	1.889	New Orleans, La.	1.[illegible]
Toledo, Ohio	1.577	San Antonio, Tex.	1.[illegible]

[7] The averages presented are weighted according to the number of members in each local union covered by the reported rates and in many cases may be lower than a simple average of specific rates owing to the heavy memberships in the less-skilled trades which carry the lower rates. While a comparison of average rates between cities where averages including the influence of the weighting factor (membership) may be misleading, owing to unusually high or low memberships in some cities in comparison with the same trades in other cities, a weighted average of this kind is obviously more realistic than a simple average. In the latter case, a wage rate for a trade including half a dozen members would be given the same importance as a trade including several hundred members.

TABLE 6.—*Average Union Hourly Wage Rates in the Building Trades, by Cities and Population Groups, July 1, 1943*—Continued

City and population group	Average hourly rate
Journeymen—Continued	
Population group IV (100,000 to 250,000):	$1.631
Youngstown, Ohio	1.540
Dayton, Ohio	1.526
Peoria, Ill	1.521
South Bend, Ind	1.499
Springfield, Mass	1.496
Spokane, Wash	1.463
Reading, Pa	1.455
Rock Island (Ill.) district [1]	1.442
Erie, Pa	1.437
New Haven, Conn	1.417
Salt Lake City, Utah	1.391
Omaha, Nebr	1.385
Des Moines, Iowa	1.383
Oklahoma City, Okla	1.382
Average for group IV	1.377
Grand Rapids, Mich	1.363
Worcester, Mass	1.359
Scranton, Pa	1.331
Nashville, Tenn	1.310
Duluth, Minn	1.290
Norfolk, Va	1.255
Richmond, Va	1.235
Wichita, Kans	1.202
Tampa, Fla	1.200
Jacksonville, Fla	1.132
Charlotte, N. C	
Population group V (40,000 to 100,000):	1.583
Butte, Mont	1.553
Charleston, W. Va	1.394
Mobile, Ala	1.377
Binghamton, N. Y	1.346
Average for group V	1.343
Manchester, N. H	1.338
Madison, Wis	1.334
El Paso, Tex	1.333
Phoenix, Ariz	1.324
Little Rock, Ark	1.276
Charleston, S. C	1.235
Jackson, Miss	1.208
Portland, Maine	1.134
York, Pa	
Helpers and laborers	
Population group I (over 1,000,000):	
New York, N. Y	1.217
Chicago, Ill	1.108
Average for group I	1.018
Detroit, Mich	.929
Los Angeles, Calif	.924
Philadelphia, Pa	.844
Population group II (500,000 to 1,000,000):	
Cleveland, Ohio	1.046
Milwaukee, Wis	1.042
Boston, Mass	1.015
San Francisco, Calif	1.006
Pittsburgh, Pa	.976
Average for group II	.961
St. Louis, Mo	.946
Washington, D. C	.920
Buffalo, N. Y	.870
Baltimore, Md	.802

City and population group	Average hourly rate
Helpers and laborers—Continued	
Population group III (250,000 to 500,000):	
Newark, N. J	$1.238
Seattle, Wash	1.099
Minneapolis, Minn	.973
Portland, Oreg	.966
Toledo, Ohio	.959
Kansas City, Mo	.958
St. Paul, Minn	.938
Cincinnati, Ohio	.911
Denver, Colo	.885
Indianapolis, Ind	.871
Rochester, N. Y	.854
Providence, R. I	.818
Columbus, Ohio	.811
Average for group III	.799
Louisville, Ky	.711
Dallas, Tex	.708
New Orleans, La	.655
Houston, Tex	.637
Birmingham, Ala	.614
Atlanta, Ga	.544
Memphis, Tenn	.542
San Antonio, Tex	.526
Population group IV (100,000 to 250,000):	
South Bend, Ind	1.021
Spokane, Wash	1.017
Peoria, Ill	1.006
New Haven, Conn	.960
Salt Lake City, Utah	.912
Rock Island (Ill.) district [1]	.892
Worcester, Mass	.883
Erie, Pa	.873
Scranton, Pa	.848
Springfield, Mass	.845
Dayton, Ohio	.841
Des Moines, Iowa	.807
Duluth, Minn	.802
Average for group IV	.738
Grand Rapids, Mich	.782
Youngstown, Ohio	.779
Reading, Pa	.767
Omaha, Nebr	.728
Oklahoma City, Okla	.671
Wichita, Kans	.658
Norfolk, Va	.653
Charlotte, N. C	.638
Jacksonville, Fla	.607
Richmond, Va	.551
Nashville, Tenn	.544
Tampa, Fla	.540
Population group V (40,000 to 100,000):	
Butte, Mont	.980
Madison, Wis	.871
Phoenix, Ariz	.868
Portland, Maine	.813
York, Pa	.778
Charleston, W. Va	.777
Manchester, N. H	.764
Binghamton, N. Y	.763
Average for group V	.759
Mobile, Ala	.665
Charleston, S. C	.514

[1] Includes Rock Island and Moline, Ill., and Davenport, Iowa.

Average Wage Rates by Size of City and Region

The averages of the combined building trades varied directly with the group size of the cities, not only for all 75 cities combined but also for the cities grouped in the North and Pacific and the South and Southwest regions. (See table 7, p. 178.)

Direct variation by size of city also held for the combined journeyman trades. Group I cities (over 1,000,000 population) had an average rate almost 10 cents per hour higher than that for group II cities (500,000–1,000,000). The average for group II cities was in turn over 10 cents per hour higher than that for group III. The average for group III cities (250,000–500,000) exceeded the group IV (100,000–250,000) average by about 10 cents, although the latter average was only about 3.5 cents higher than that for group V (40,000–100,000). This relationship, however, did not exist generally among the individual trades, as only 11 journeyman trades had averages that varied directly with city size.

Direct variation by population group also held true for the combined helper and laborer trades, despite the fact that only 2 of the 10 individual trades showed direct variations.

In the North and the Pacific region, there was a direct variation between the wage-rate averages and the city sizes for all trades combined and also for the journeyman and helper and laborer groups considered separately. Averages for the combined journeyman and helper and laborer group varied directly by city size in the South and Southwest region but direct variation did not hold true for either of these individual groups. For the journeymen, group V cities in this region had a higher average than size IV cities. This was due to the relatively high scales reported in El Paso, Phoenix, and Mobile. Helpers and laborers in size V cities in the South and Southwest had a higher average than size III and IV cities, owing to the large number of helpers and laborers at relatively high rates reported in Phoenix.

A comparison of average wage rates between the North and Pacific and the South and Southwest regions must be confined to city-size groups III, IV, and V, as there is no city in the South or Southwest with a population of 500,000 or more. Higher average wage rates in the North and Pacific region was the rule for all building trades within the city-size groups, as well as for the journeyman and helper and laborer trades taken separately.

Among the individual journeyman trades, there were only 13 out of 74 possible comparisons where the averages in the South and Southwest were higher than those in the North and Pacific region. Eight of these 13 comparisons were in group V cities and can be accounted for by relatively high rates in Mobile and El Paso. Helper and laborer averages showed one instance of higher rates for the South and Southwest within the city-size groups. Plasterers' laborers in size V cities had an average almost 9 cents per hour higher in the South and Southwest than in the North and Pacific region. This was attributable to the influence of the plasterers' laborer rate in Phoenix.

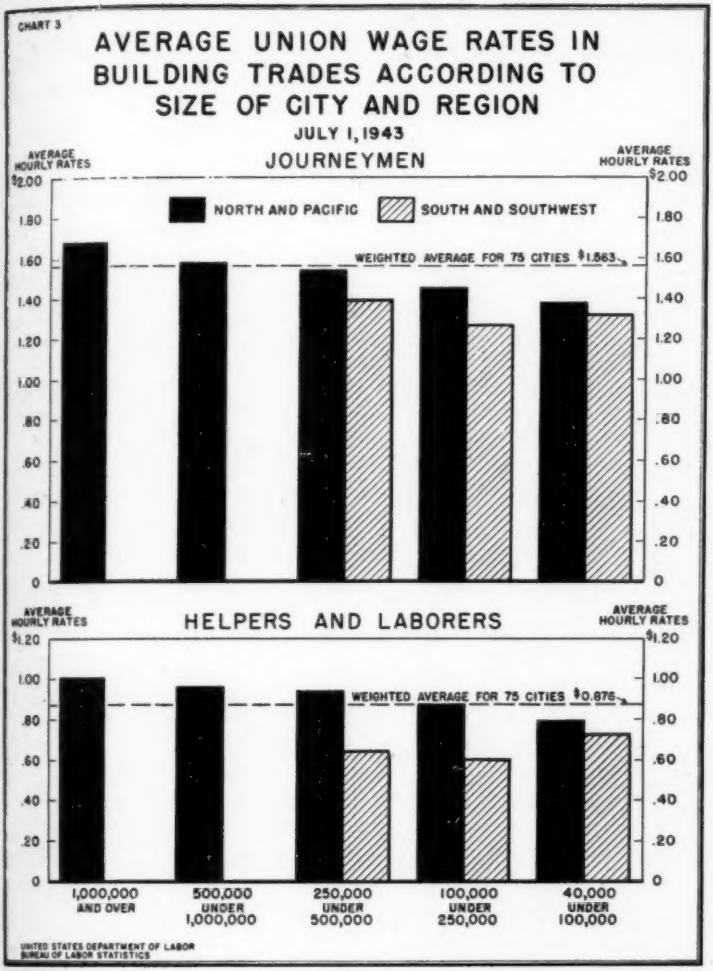


CHART 3
AVERAGE UNION WAGE RATES IN BUILDING TRADES ACCORDING TO SIZE OF CITY AND REGION
JULY 1, 1943
JOURNEYMEN
AVERAGE HOURLY RATES
$2.00
1.80
1.60
1.40
1.20
1.00
.80
.60
.40
.20
0
NORTH AND PACIFIC
SOUTH AND SOUTHWEST
WEIGHTED AVERAGE FOR 75 CITIES $1.563
HELPERS AND LABORERS
$1.20
1.00
.80
.60
.40
.20
0
WEIGHTED AVERAGE FOR 75 CITIES $0.876
1,000,000 AND OVER
500,000 UNDER 1,000,000
250,000 UNDER 500,000
100,000 UNDER 250,000
40,000 UNDER 100,000
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 7.—*Average Union Wage Rate in Each Building Trade, by Region and Population Group, July 1, 1943*

Trade	Cities in population group [1]										
	Group I [2]	Group II [2]	Group III			Group IV			Group V		
	North and Pacific	North and Pacific	All cities	North and Pacific	South and Southwest	All cities	North and Pacific	South and Southwest	All cities	North and Pacific	South and Southwest
All building trades	$1.585	$1.466	$1.290	$1.390	$1.150	$1.240	$1.302	$1.143	$1.153	$1.190	$1.121
Journeymen	1.685	1.587	1.486	1.545	1.395	1.382	1.455	1.276	1.346	1.384	1.224
Asbestos workers	1.625	1.640	1.519	1.479	1.576	1.481	1.487	1.472	1.512	1.570	1.349
Boilermakers	1.727	1.686	1.559	1.608	1.513	1.636	1.644	1.500	1.562	1.618	1.499
Bricklayers	1.884	1.747	1.699	1.747	1.631	1.632	1.657	1.586	1.611	1.647	1.579
Carpenters	1.629	1.539	1.425	1.508	1.307	1.290	1.396	1.177	1.254	1.260	1.221
Cement finishers	1.639	1.545	1.500	1.520	1.481	1.386	1.413	1.353	1.380	1.416	1.309
Electrician, inside wiremen	1.788	1.658	1.614	1.641	1.552	1.531	1.556	1.473	1.452	1.446	1.467
Elevator constructors	1.718	1.672	1.539	1.559	1.501	1.487	1.500	1.446	1.372	1.388	1.337
Glaziers	1.669	1.507	1.372	1.424	1.194	1.250	1.304	1.087	1.197	1.235	1.176
Granite cutters	1.535	1.253	.....	1.278	.....	.....	(3)	.....	.....	(3)	.....
Lathers	1.746	1.708	1.615	1.658	1.552	1.537	1.555	1.500	1.479	1.545	1.462
Machinists	1.697	1.552	1.484	1.554	1.451	1.361	1.478	1.293	1.374	(3)	(3)
Marble setters	1.697	1.543	1.611	1.639	1.542	1.489	1.523	1.438	1.563	1.527	1.604
Mosaic and terrazzo workers	1.682	1.500	1.465	1.404	1.539	1.421	1.401	1.471	1.533	1.483	1.536
Painters	1.642	1.477	1.389	1.455	1.277	1.285	1.325	1.218	1.206	1.183	1.221
Paperhangers	1.641	1.531	1.350	1.390	1.213	1.287	1.300	1.211	1.203	1.133	1.262
Plasterers	1.899	1.736	1.610	1.675	1.526	1.567	1.621	1.485	1.488	1.538	1.441
Plumbers and gas fitters	1.760	1.646	1.606	1.617	1.588	1.525	1.545	1.500	1.567	1.523	1.599
Rodmen	1.609	1.676	1.440	1.564	1.316	1.439	1.525	1.263	1.378	1.516	1.326
Roofers, composition	1.615	1.474	1.320	1.428	1.129	1.170	1.262	1.002	1.276	1.169	1.364
Roofers, slate and tile	1.743	1.679	1.377	1.454	1.208	1.208	1.288	1.155	1.293	(3)	1.370
Sheet-metal workers	1.675	1.591	1.494	1.525	1.436	1.373	1.409	1.283	1.342	1.379	1.328
Sign painters	1.825	1.609	1.505	1.552	1.393	1.363	1.390	1.294	1.365	1.477	1.279
Steam and sprinkler fitters	1.755	1.626	1.606	1.601	1.620	1.525	1.540	1.500	1.560	1.577	1.530
Stonecutters	1.898	1.434	1.690	1.699	(3)	.....	1.300	.....	.....	.....	(3)
Stonemasons	1.450	1.658	1.685	1.698	1.645	1.592	1.596	1.575	1.483	1.580	1.440
Structural-iron workers	1.712	1.753	1.595	1.656	1.529	1.536	1.597	1.403	1.563	1.619	1.400
Tile layers	1.530	1.547	1.501	1.534	1.440	1.395	1.350	1.469	1.508	1.450	1.462
Helpers and laborers	1.018	.961	.799	.940	.645	.788	.876	.604	.759	.798	.726
Bricklayers' tenders	1.062	1.072	.936	1.054	.738	.897	.963	.699	.903	.906	.901
Building laborers	.944	.918	.769	.908	.632	.750	.839	.582	.725	.768	.704
Composition roofers' helpers	(3)	.906	.800	.967	(3)	.758	.860	(3)	.766	(3)	(3)
Elevator constructors' helpers	1.274	1.198	1.122	1.144	1.059	1.050	1.069	1.002	1.043	(3)	1.038
Marble-setters' helpers	1.143	1.001	1.068	1.095	(3)	.....	.991	.....	.....	.....	(3)
Plasterers' laborers	1.329	1.146	.932	1.093	.708	.957	1.049	.711	.981	.922	1.011
Plumbers' laborers	1.261	.983	.811	.969	.638	.865	.917	.666	.774	.775	(3)
Steam and sprinkler fitters' helpers	1.367	.921	.....	.955	.....	.762	.849	(3)	.832	.821	(3)
Terrazzo workers' helpers	1.259	1.064	1.036	1.089	.808	.....	1.059	.....	.....	(3)	.....
Tile layers' helpers	1.141	1.043	.944	1.036	.635	.....	.872	.....	.827	(3)	(3)

[1] Group I includes cities of over 1,000,000 population; group II, 500,000 to 1,000,000; Group III, 250,000 to 500,000; group IV, 100,000 to 250,000; and group V, 40,000 to 100,000.
[2] No city of this size in the South or Southwest.
[3] Insufficient quotations to compute an average.

Overtime Rates

This discussion of overtime rates refers only to those rates on non-Federal construction projects. The initial overtime rate for Federal construction was established as time and one-half by the Building Trades Stabilization Agreement.[8] However, as a result of that agreement a large number of local unions abolished double-time rates for all

[8] See footnote 4, p. 166.

work for the duration of the war. A comparison with previous years indicates that in 1941 about 60 percent of the members were covered by overtime provisions calling for double time; in 1942, 55.6 percent; and in 1943, only 37.6 percent.

Time and one-half was reported as the initial overtime rate in over three-fifths of the quotations covering 62.4 percent of the building-trades workers. (See table 8.) Only three quotations did not specify an overtime rate. Over half the journeyman quotations provided time and a half for overtime. Fifteen journeyman trades reported time and one-half for a majority of their members. Only the granite cutters' agreements provided for double time for as many as 75 percent of their members. The vast majority of helpers and laborers were covered by agreements providing an initial overtime rate of time and a half. Double time was provided in only about 28 percent of the quotations, covering less than 10 percent of the helpers.

TABLE 8.—*Overtime Rates Provided in Building-Trades Union Agreements, July 1, 1943*

Trade	Number of quotations showing initial overtime rates of—			Percent of union members having initial overtime rates of—		
	Time and a half	Double time	No penalty rate specified	Time and a half	Double time	No penalty rate specified
All building trades	1,718	1,081	3	62.4	37.6	(1)
Journeymen	1,272	908	2	54.7	45.3	(1)
Asbestos workers	38	33		52.9	47.1	
Boilermarkers	14	33		41.1	58.9	
Bricklayers	47	42		39.8	60.2	
Carpenters	82	44		55.7	44.3	
Cement finishers	68	22		67.6	32.4	
Electricians, inside wiremen	53	40		54.4	45.6	
Elevator constructors	48	78		41.4	58.6	
Glaziers	59	17		54.0	46.0	
Granite cutters	10	5		24.9	75.1	
Lathers	35	44		43.6	56.4	
Machinists	25	14		68.0	32.0	
Marble setters	31	35		41.8	58.2	
Mosaic and terrazzo workers	39	18		55.3	44.7	
Painters	145	40		71.6	28.4	
Paperhangers	60	14		90.7	9.3	
Plasterers	44	47		34.1	65.9	
Plumbers and gas fitters	41	43		40.7	59.3	
Rodmen	21	53		38.9	61.1	
Roofers, composition	89	23		84.6	15.4	
Roofers, slate and tile	49	16		72.8	27.2	
Sheet-metal workers	24	50		51.2	48.8	
Sign painters	68	10		75.0	25.0	
Steam and sprinkler fitters	56	57		54.3	45.7	
Stonecutters	20	6	2	42.5	56.7	0.8
Stonemasons	34	26		35.7	64.3	
Structural-iron workers	24	70		30.4	69.6	
Tile layers	48	29		62.7	37.3	
Helpers and laborers	446	173	1	90.5	9.5	(1)
Bricklayers' tenders	88	11		94.1	5.9	
Building laborers	81	11		93.5	6.5	
Composition roofers' helpers	25	4		91.4	8.6	
Elevator constructors' helpers	27	61		44.4	55.6	
Marble setters' helpers	24	12		46.9	53.1	
Plasterers' laborers	69	18		80.6	19.4	
Plumbers' laborers	36	10		66.4	33.6	
Steam and sprinkler fitters' helpers	23	21	1	73.4	24.9	1.7
Terrazzo workers' helpers	37	13		52.4	47.6	
Tile layers' helpers	36	12		50.5	49.5	

[1] Less than a tenth of 1 percent.

Sunday Rates

The rate for Sunday work on Federal construction projects is time and one-half, according to the stabilization agreement.[9] On other than Federal work almost 70 percent of the building-trades quotations, including approximately 63 percent of the union members, provided double time for Sunday work. Over two-thirds of the quotations for both the journeyman and helper trades stipulated double time, but a slightly larger percentage of journeyman members (64.9) than helpers (55.4) were covered by these double-time rates. (See table 9.)

TABLE 9.—*Sunday Rates Provided in Building-Trades Union Agreements, July 1, 1943*

Trade	Number of quotations showing Sunday rates of—			Percent of union members having Sunday rates of—		
	Time and a half	Double time	No penalty rate specified	Time and a half	Double time	No penalty rate specified
All building trades	883	1,916	3	37.1	62.9	(1)
Journeymen	682	1,498	2	35.1	64.9	(1)
Asbestos workers	26	44	1	35.4	64.0	0.6
Boilermakers	7	40	.....	37.2	62.8	.....
Bricklayers	23	66	.....	23.0	77.0	.....
Carpenters	39	87	.....	27.7	72.3	.....
Cement finishers	44	46	.....	44.8	55.2	.....
Electricians, inside wiremen	33	60	.....	43.4	56.6	.....
Elevator constructors	10	116	.....	17.9	82.1	.....
Glaziers	29	47	.....	22.1	77.9	.....
Granite cutters	1	14	.....	1.3	98.7	.....
Lathers	20	59	.....	23.5	76.5	.....
Machinists	13	26	.....	40.2	59.8	.....
Marble setters	12	54	.....	18.3	81.7	.....
Mosaic and terrazzo workers	14	43	.....	16.0	84.0	.....
Painters	99	86	.....	58.9	41.1	.....
Paperhangers	36	38	.....	68.9	31.1	.....
Plasterers	33	58	.....	21.7	78.3	.....
Plumbers and gas fitters	24	60	.....	34.0	66.0	.....
Rodmen	16	57	.....	33.7	66.3	.....
Roofers, composition	41	71	.....	33.9	66.1	.....
Roofers, slate and tile	25	40	.....	36.0	64.0	.....
Sheet-metal workers	16	58	.....	44.2	55.8	.....
Sign painters	28	50	.....	31.8	68.2	.....
Steam and sprinkler fitters	32	81	.....	41.8	58.2	.....
Stonecutters	10	17	1	36.5	73.2	3
Stonemasons	15	45	.....	15.6	84.4	.....
Structural-iron workers	19	75	.....	23.0	77.0	.....
Tile layers	17	60	.....	27.4	72.6	.....
Helpers and laborers	201	418	1	44.6	55.4	(1)
Bricklayers' tenders	43	56	.....	48.8	51.2	.....
Building laborers	41	51	.....	44.7	55.3	.....
Composition roofers' helpers	13	16	.....	49.7	50.3	.....
Elevator constructors' helpers	7	81	.....	26.3	73.7	.....
Marble setters' helpers	5	31	.....	16.8	83.2	.....
Plasterers' laborers	37	80	.....	35.7	64.3	.....
Plumbers' laborers	21	25	.....	42.6	57.4	.....
Steam and sprinkler fitters' helpers	11	33	1	66.6	31.7	1.7
Terrazzo workers' helpers	13	37	.....	16.0	84.0	.....
Tile layers' helpers	10	38	.....	32.0	68.0	.....

[1] Less than a tenth of 1 percent.

[9] See footnote 4, p. 166.

Weekly Hours

TREND OF MAXIMUM WEEKLY HOURS [10]

The index of union hours at straight-time rates in the combined building trades declined less than a tenth of 1 percent during the period studied, July 1, 1942, to July 1, 1943. Although small, the decrease was sufficient to reduce the index from 89.5 in 1942 to 89.4 in 1943 (1929=100), indicating an arresting of the upward trend in hours during 1941 and 1942. (See table 10.)

Maximum weekly straight-time hours for journeymen increased 0.2 percent during the period, while the index for helpers and laborers decreased 0.7 percent. The slight lengthening of the average workweek for journeymen is the result of increases in hours for some crafts in certain areas from 30 or 35 to 40 hours per week. The decrease in hours for helpers, as shown in the index, results from a decrease for building laborers in a few cities from 48 or 44 to 40 hours per week. The 40-hour-straight-time week on Federal construction projects was the important factor influencing these changes.

TABLE 10.—*Indexes of Union Weekly Hours in all Building Trades, 1907–43*

[1929=100]

Year	All trades	Journeymen	Helpers and laborers	Year	All trades	Journeymen	Helpers and laborers
1907	110.0	109.3	113.1	1926	101.7	101.6	102.2
1908	108.3	107.7	110.8	1927	101.5	101.4	102.2
1909	106.8	106.4	108.5	1928	100.9	100.7	102.1
1910	105.5	105.2	106.6	1929	100.0	100.0	100.0
1911	105.1	104.8	106.4	1930	97.2	97.1	97.8
1912	104.8	104.5	106.1	1931	96.0	95.8	97.0
1913	104.6	104.2	106.1	1932	94.3	94.1	94.8
1914	104.2	103.9	105.5	1933	94.0	93.8	94.4
1915	104.1	103.8	105.4	1934	90.5	90.3	91.4
1916	103.7	103.4	105.1	1935	89.8	89.6	90.8
1917	103.5	103.2	104.7	1936	89.8	89.6	91.0
1918	102.9	102.6	104.3	1937	90.2	90.0	91.3
1919	102.4	102.2	103.3	1938	88.7	88.4	89.9
1920	101.9	101.7	102.7	1939	88.5	88.3	89.7
1921	101.8	101.6	102.7	1940	88.4	88.3	89.2
1922	101.8	101.7	102.4	1941	88.8	88.7	89.4
1923	101.9	101.8	102.6	1942	89.5	89.9	88.6
1924	101.9	101.8	102.6	1943	89.4	90.1	88.0
1925	101.9	101.8	102.4				

WEEKLY HOURS, 1943

The average maximum straight-time hours per week allowed by union agreements on July 1, 1943, was 39.8 for the combined building trades. The average for journeymen was 39.7 hours per week; for helpers and laborers, 40.1. It should be noted that these averages refer to hours worked before overtime rates are paid and have no relationship to actual hours worked per week. Practically all (94.2 percent) of the union members were covered by agreements which provided a straight-time 40-hour week. The helpers had a slightly larger proportion of their members (95.3 percent) than the journeymen (94.0 percent) working at this scale.

Elevator constructors had the highest average straight-time hours for the journeyman trades (40.1) while the granite cutters' average

[10] For method used to compute indexes of weekly hours, see p. 164.

(36.3) was the lowest. Elevator constructors' helpers and plumbers' laborers had the highest average hours (40.2) among the helper and laborer trades, and the terrazzo workers' helpers had the lowest (38.0).

TABLE 11.—*Distribution of Union Members in Each Building Trade, by Weekly Hours, July 1, 1943*

Trade	Average hours per week	Percent of union members having workweek of—					
		30 hours	35 hours	40 hours	44 hours	45 hours	48 hours
All building trades	39.8	0.5	4.4	94.2	0.8	(1)	0.1
Journeymen	39.7	.6	5.3	94.0	.1		(1)
Asbestos workers	39.8	2.3		97.7			
Boilermakers	39.6		7.5	92.5			
Bricklayers	38.7	.1	26.5	73.2	.2		
Carpenters	39.9	.1	2.2	97.7			
Cement finishers	39.8	.1	6.9	89.9	1.2		1.9
Electricians, inside wiremen	40.0	.1		99.9			
Elevator constructors	40.1			96.5	3.5		
Glaziers	39.3		13.7	85.8	.5		
Granite cutters	36.3		73.8	26.2			
Lathers	39.6	3.0	1.8	95.2			
Machinists	39.9		1.1	98.9			
Marble setters	38.9		22.0	77.1	.9		
Mosaic and terrazzo workers	38.6		27.7	72.1	.2		
Painters	39.3	(1)	13.0	87.0	(1)		
Paperhangers	39.6		8.5	90.6	.9		
Plasterers	37.7	22.0	1.4	76.6			
Plumbers and gas fitters	40.0	.1		99.9			
Rodmen	40.0			100.0			
Roofers, composition	40.0		2.8	95.3	1.3		.6
Roofers, slate and tile	40.0			99.7	.3		
Sheet-metal workers	40.0		.9	98.7	.4		
Sign painters	39.1		20.7	76.8	2.5		
Steam and sprinkler fitters	40.0	(1)		100.0			
Stonecutters	37.6		47.7	52.3			
Stonemasons	40.0		.4	99.5	.1		
Structural-iron workers	39.9		1.9	98.1			
Tile layers	40.0			99.9	.1		
Helpers and laborers	40.1	.2	1.1	95.3	3.2	0.1	.1
Bricklayers' tenders	40.1	.1	2.9	91.2	5.1	.7	
Building laborers	40.1	(1)	.4	96.3	3.1		.3
Composition roofers' helpers	40.0			100.0			
Elevator constructors' helpers	40.2			94.8	5.2		
Marble setters' helpers	39.1		19.5	79.7	.8		
Plasterers' laborers	39.6	3.7	3.4	90.1	1.9	.9	
Plumbers' laborers	40.2			95.7	4.3		
Steam and sprinkler fitters' helpers	40.0			100.0			
Terrazzo workers' helpers	38.0	.6	39.9	58.5	1.0		
Tile layers' helpers	40.0			99.8	.2		

[1] Less than a tenth of 1 percent.

Trends in Factory Earnings, 1939 to October 1943

THE published average earnings of factory workers are summarized in the following table for selected months, January 1939 to October 1943.[1] The earnings shown in this table are on a gross basis (i. e., before deductions for social security, income and victory taxes, bond purchases, etc.).

[1] Compare "Trends in Factory Wages, 1939–43," Monthly Labor Review, November 1943, pp. 869–88, especially table 4, p. 879. For detailed data regarding weekly earnings, see Detailed Reports for Industrial and Business Employment, October 1943, table 6, p. 223, of this issue.

Earnings of Factory Workers, Selected Months, 1939 to October 1943

Month and year	Average weekly earnings			Average hourly earnings			Estimated straight-time average hourly earnings [1]			Estimated straight-time average hourly earnings weighted by January 1939 employment [2]		
	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
January 1939	$23.19	$25.33	$21.57	$0.632	$0.696	$0.583	$0.623	$0.688	$0.574	$0.623	$0.688	$0.574
January 1940	24.56	27.39	22.01	.655	.717	.598	.644	.703	.589	.635	.697	.589
January 1941	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601	.648	.711	.600
July 1941	29.62	33.90	25.16	.735	.815	.645	.708	.780	.630	.689	.771	.628
January 1942	33.40	38.98	26.97	.801	.890	.688	.762	.835	.670	.729	.810	.667
July 1942	36.43	42.51	28.94	.856	.949	.725	.809	.856	.701	.759	.846	.694
October 1942	38.89	45.31	30.66	.893	.990	.751	.839	.919	.723	.782	.869	.716
January 1943	40.62	46.68	32.10	.919	1.017	.768	.859	.941	.733	.794	.886	.724
April 1943	42.48	48.67	33.58	.944	1.040	.790	[3] .878	.957	[3] .751	.808	.897	.741
July 1943	42.76	48.76	34.01	.963	1.060	.806	[3] .899	.981	[3] .766	.823	.919	.750
August 1943	43.52	49.61	[3] 34.55	.965	1.060	.811	[3] .897	.976	[3] .769	.822	.911	.755
September 1943 [4]	44.43	51.06	34.73	.994	1.098	.823	.925	1.012	.783	.843	.942	.767
October 1943 [4]	44.90	51.46	35.18	.989	1.088	.824	.916	.997	.781	.836	.931	.765

[1] Average hourly earnings, excluding the effect of premium pay for overtime.
[2] Average hourly earnings, excluding premium pay for overtime, weighted by man-hours of employment in the major divisions of the manufacturing industry for January 1939.
[3] Revised.
[4] Preliminary.

Weekly earnings in all manufacturing averaged $44.90 in October 1943—94 percent above the average in January 1939, 69 percent above January 1941, and 16 percent above October 1942. Such factors as longer hours of work, merit increases for individual workers, premium pay for overtime worked, changing composition of the labor force within plants, shifts in the distribution of workers among plants and among industries, as well as wage-rate increases, account for the rise in earnings.

Gross hourly earnings in all manufacturing averaged 98.9 cents in October 1943—57 percent above the average in January 1939, 45 percent above January 1941, and 11 percent above October 1942.

Straight-time average hourly earnings, as shown in columns 7 to 9, are estimated to exclude premium pay at time and a half for work in excess of 40 hours. The effect of extra pay for work on supplementary shifts and on holidays is included. For all manufacturing, the straight-time average in October 1943 was 91.6 cents per hour; this was 47 percent higher than in January 1939, 38 percent above January 1941, and 9 percent above October 1942. Because of the influence of premium pay for work done on Labor Day, the September figures are not strictly comparable with those shown for other months.

The shift of workers from relatively low-wage to relatively high-wage industries since 1939 would have raised the average earnings of factory workers, even if no other influences had been present. The effects of such interindustry shifts have been eliminated from the averages shown in columns 10 to 12 of the table. If employment had been distributed between industries as it was in January 1939, the straight-time earnings of factory workers would have

averaged 83.6 cents in October 1943, or 34 percent above the corresponding average in January 1939, 29 percent above January 1941, and 7 percent above October 1942. Even this latter series of averages exaggerates the rise in wage rates, because it includes the influence of interplant shifts of employment, merit increases for individual workers, and premium rates for work on extra shifts and on holidays.

Trend of Wages in Chungking, 1927 to 1943[1]

IN MARCH 1943, the real wages of factory laborers in Chungking were only about 50 percent of their pre-war level, despite the increase in money. On the other hand, the real wages of carpenters and stonemasons were above the level of January–June 1937. The accompanying tabulation gives indexes of real wages, by occupation, in November 1942 and March 1943, based on January–June 1937 as 100.

	March 1943	*November 1942*
Factory labor in	50. 1	48. 0
Flour milling	58. 2	57. 0
Machinery	47. 1	46. 0
Printing	58. 6	48. 0
Weaving	50. 7	53. 0
Coolies and artisans	80. 1	80. 0
Carpenters	105. 0	97. 0
Carriers	46. 5	52. 0
Cart pullers	70. 5	79. 0
Masons	100. 4	97. 0
Ricksha pullers	89. 7	102. 0
River boatmen	69. 7	80. 0
Stonemasons	201. 4	231. 0
Water carriers	69. 2	55. 0
Wharf coolies	59. 9	47. 0

Wages on Public Works in Palestine, September 1942

AT THE end of September 1942, the highest daily median wage for casual workers on public works in Palestine was 575 mils[2] for electricians and assistant electricians. Asphalters and mates were receiving the lowest wage in this group of workers, or 275 mils. The median for Jewish laborers was 356 mils while that for Arab laborers including skilled workers was only 200 mils.[3] The median daily wage for these and other casual workers on public works at the end of September 1942 is shown below.

	Median wage (mils)
Masons and mates	429
Spreaders and mates (including metal spreaders)	330
Stone dressers	416
Carpenters, joiners, and mates	434
Painters and mates	511
Asphalters and mates	275
Electricians and assistant electricians	575
Fitters and mates (including fitter mechanics and apprentices)	408
Laborers:	
Jews	356
Arabs (including "skilled" workers)	200

[1] Data were included in a report from the United States commercial attaché in Chungking.
[2] Exchange rate September 1942, mil=0.31 cent.
[3] General Monthly Bulletin of Current Statistics (Palestine, Office of Statistics, Jerusalem), July 1942.

On Government railways in Palestine the median wages per day for regular workers exclusive of compensatory allowances ranged from 129 mils for unskilled laborers to 438 mils for tinsmiths. For casual workers not entitled to compensatory allowances the median ran from 233 for blacksmiths' mates to 379 mils for masons. Other median daily wage rates may be seen in the accompanying table.

Median Daily Wage Rates of Government Railway Workers, End of September 1942

Occupation	Regular workers entitled to compensatory allowances [1]	Casual workers not entitled to compensatory allowances	Occupation	Regular workers entitled to compensatory allowances [1]	Casual workers not entitled to compensatory allowances
	Mils [2]	*Mils* [2]		*Mils* [2]	*Mils* [2]
Masons	335	379	Gangers	274	----------
Masons' mates	178	237	Riveters	308	----------
Painters	331	306	Riveters' mates	225	----------
Painters' mates	206	----------	Signalmen	228	----------
Fitters	394	363	Guards	285	----------
Fitters' mates	220	239	Pointsmen	176	----------
Carpenters	384	347	Shunters	227	----------
Carpenters' mates	213	----------	Firemen	241	----------
Blacksmiths	343	342	Carriage and wagon examiners	325	----------
Blacksmiths' mates	191	233	Carriage and wagon oilers	180	----------
Moulders	337	----------	Repairers	291	----------
Electricians	388	----------	Repairers' mates	187	----------
Welders	428	----------	Engine cleaners	176	----------
Turners	432	334	Boilersmiths	419	----------
Tinsmiths	438	----------	Boilersmiths' mates	212	----------
Stone dressers	----------	370	Laborers, unskilled	129	----------
Drivers, engine	400	----------	Laborers, semiskilled	174	----------

[1] Wages do not include allowances.
[2] Exchange rate of mil in September 1942=0.31 cent.

Cost of Living and Retail Prices

Cost of Living in Large Cities, November 1943

PRICES paid by city workers for goods and services that they commonly buy decreased slightly from mid-October to mid-November. The 0.2-percent decline was caused by an 0.7-percent decrease in the total food bill, resulting mainly from seasonally lower prices for oranges and some winter vegetables in most of the Nation's grocery stores. The total cost of living was 3.6 percent higher than in November 1942 and 23 percent higher than in January 1941. Foods cost 4.7 percent more than in November 1942 and 40 percent more than in January 1941.

The decrease in food prices from October to November was chiefly due to lower prices for fresh fruits and vegetables, with seasonal declines for oranges, spinach, and cabbage, and a 3.8-percent drop in apple prices which usually rise at this season. Prices of pork and beef declined slightly and ration-point values were lowered with increased marketings of hogs and relaxed restrictions on cattle slaughtering.

The average price of peanut butter dropped 2.4 cents per pound as the first effects of the 4½-cent per pound subsidy at the processors' level were felt. Prices of fresh fish rose 3.8 percent. There were seasonal increases for green beans and sweetpotatoes, and for onions, for which the supply is very limited. White-potato prices rose much less than usual at this time of year. Prices of dairy products were generally stable except in Denver, where a municipal sales tax of 2 cents per quart on fresh milk resulted in a rise in food costs for that city of 1.1 percent.

Although retail food prices declined in a majority of large cities, advances were reported in large West Coast cities, owing primarily to seasonally higher prices for California oranges. Prices of apples and the winter vegetables were also generally higher there, contrary to the trend in other parts of the country.

Clothing and housefurnishings costs remained unchanged on the average, following the establishment of prices for the autumn season in September and October. Shortages of all types of children's wear, particularly shoes, continued to be reported, and stocks of men's white shirts were generally low.

Fuel prices rose slightly (0.1 percent) because of higher winter gas rates and adjustments to new ceilings for anthracite coal in New York, and higher prices for wood in several cities.

Costs of miscellaneous goods and services that go into the family budget rose 0.1 percent over the month. In St. Louis, where the rise was 1.3 percent, a cigarette sales tax of 2 cents per package was put into effect on October 23. Other scattered changes reflected the continued upward trend in the charges for personal services such as haircuts and beauty-shop and laundry services.

TABLE 1.—*Indexes of Cost of Living in Large Cities, November 15, 1943, and Earlier Dates*

Date	Indexes [1] (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1939: August 15	98.6	93.5	100.3	104.3	97.5	100.6	100.4
1941: January 15	100.8	97.8	100.7	105.0	100.8	100.1	101.9
1942: May 15	116.0	121.6	126.2	109.9	104.9	122.2	110.9
September 15	117.8	126.6	125.8	108.0	106.2	123.6	111.4
November 15	119.8	131.1	125.9	108.0	106.2	123.7	112.7
1943: October 15	124.4	138.2	133.0	[2]	107.9	126.5	117.6
November 15	124.1	137.3	133.0	[2]	108.0	126.5	117.7

[1] Based on changes in cost of goods purchased by wage earners and lower-salaried workers in large cities.
[2] Rents surveyed at quarterly dates: Mar. 15, June 15, Sept. 15, and Dec. 15.

TABLE 2.—*Percent of Change in Cost of Living in Large Cities in Specified Periods*

Date	Percent of change [1] in cost of—						
	All items	Food	Clothing	Rent [2]	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Oct. 15, 1943, to Nov. 15, 1943	−0.2	−0.7	0	[3]	+0.1	0	+0.1
Nov. 15, 1942, to Nov. 15, 1943	+3.6	+4.7	+5.6	0	+1.7	+2.3	+4.4
Sept. 15, 1942, to Nov. 15, 1943	+5.3	+8.5	+5.7	0	+1.7	+2.3	+5.7
May 15, 1942, to Nov. 15, 1943	+7.0	+12.9	+5.4	−1.7	+3.0	+3.5	+6.1
Jan. 15, 1941, to Nov. 15, 1943	+23.1	+40.4	+32.1	+2.9	+7.1	+26.4	+15.5
Aug. 15, 1939, to Nov. 15, 1943	+25.9	+46.8	+32.6	+3.5	+10.8	+25.7	+17.2

[1] Based on changes in cost of goods purchased by wage earners and lo wer-salariedworkers in large cities.
[2] Changes through Sept. 15, 1943.
[3] Rents surveyed at quarterly dates: Mar. 15, June 15, Sept. 15, and Dec. 15.

TABLE 3.—*Percent of Change [1] in Cost of Living in Large Cities in Specified Periods, by City, Since Aug. 15, 1939, Jan. 1, 1941, and Other Specified Dates*

City	Nov. 15 1942, to Nov. 15, 1943	Aug. 15, 1939, to Nov. 15, 1943	Jan. 1, 1941, to Nov. 15, 1943	May 15, 1942, to Nov. 15, 1943	Sept. 15, 1942, to Nov. 15, 1943
Average: Large cities	+3.6	+25.9	+23.1	+7.0	+5.3
New England: Boston	+1.7	+24.4	+21.9	+6.5	+4.0
Middle Atlantic:					
Buffalo	+2.3	+27.7	+23.5	+4.4	+4.4
New York	+5.2	+26.0	+23.5	+10.1	+7.2
Philadelphia	+3.5	+25.7	+23.9	+7.1	+5.1
Pittsburgh	+4.6	+26.7	+23.2	+7.7	+6.1
East North Central:					
Chicago	+2.8	+24.4	+21.3	+5.4	+4.7
Cincinnati	+3.2	+26.8	+23.9	+6.5	+4.6
Cleveland	+5.0	+28.1	+25.6	+7.8	+7.1
Detroit	+3.2	+26.4	+23.3	+4.8	+5.2
West North Central:					
Kansas City	+4.1	+23.5	+23.8	+6.7	+6.2
Minneapolis	+2.4	+22.1	+19.5	+5.0	+4.2
St. Louis	+3.7	+25.2	+21.6	+6.2	+5.3
South Atlantic:					
Baltimore	+3.4	+26.6	+24.1	+5.8	+4.3
Savannah	+6.7	+32.6	+29.9	+8.9	+7.9
Washington, D. C.	+4.4	+25.2	+23.5	+7.6	+5.4
East South Central: Birmingham	+6.2	+29.2	+25.3	+7.2	+7.2
West South Central: Houston	+3.5	+22.1	+20.6	+5.9	+4.2
Mountain: Denver	+3.4	+24.2	+22.5	+6.0	+4.5
Pacific:					
Los Angeles	+2.6	+26.0	+23.5	+7.2	+4.0
San Francisco	+3.0	+28.2	+25.0	+8.2	+5.3
Seattle	+3.0	+28.1	+25.9	+6.0	+4.7

[1] Based on indexes of cost of goods purchased by wage earners and lower-salaried workers in large cities

TABLE 4.—*Indexes of Cost of Living in Large Cities, November 15, 1943, by Groups of Items and City*

City	Indexes [1] (1935-39=100) of cost of—					
	All items	Food	Clothing	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Average: Large cities	[2] 124.1	[3] 137.3	[4] 133.0	[5] 108.0	[4] 126.5	[4] 117.7
New England: Boston	120.8	131.4	129.5	118.4	121.6	114.4
Middle Atlantic:						
Buffalo	125.8	137.8	132.4	104.8	126.7	122.3
New York	124.7	139.3	136.4	112.7	120.6	117.4
Philadelphia	122.9	135.4	131.4	105.8	124.7	116.2
Pittsburgh	124.7	138.0	141.2	110.3	125.7	113.9
East North Central:						
Chicago	122.8	133.9	128.6	103.2	120.9	116.2
Cincinnati	123.4	134.9	135.6	103.8	131.3	117.7
Cleveland	128.1	143.1	136.3	113.5	126.8	117.7
Detroit	124.5	133.3	132.5	108.8	124.6	120.2
West North Central:						
Kansas City	121.8	132.7	130.8	108.1	120.8	118.7
Minneapolis	121.7	132.2	129.8	102.5	125.5	118.9
St. Louis	122.8	138.7	133.3	106.2	117.7	114.4
South Atlantic:						
Baltimore	125.0	142.4	132.7	106.8	130.5	114.9
Savannah	131.7	150.4	134.5	113.5	121.8	120.9
Washington, D. C.	123.4	137.5	141.2	106.8	132.2	121.4
East South Central: Birmingham	127.3	141.7	133.0	102.5	121.8	117.6
West South Central: Houston	123.0	136.9	134.6	90.0	123.2	118.6
Mountain: Denver	122.5	136.8	126.0	101.3	122.0	116.5
Pacific:						
Los Angeles	126.6	144.4	134.0	94.2	119.1	120.2
San Francisco	127.3	143.7	131.6	92.1	118.9	124.6
Seattle	128.5	143.6	133.5	102.7	122.2	127.2

[1] Based on cost of goods purchased by wage earners and lower-salaried workers in large cities.
[2] Rents surveyed at quarterly dates, Mar. 15, June 15, Sept. 15, and Dec. 15.
[3] Based on prices for 56 cities collected on the Tuesday nearest the fifteenth of the month.
[4] Based on data for 21 cities.
[5] Based on data for 34 cities.

TABLE 5.—*Indexes of Cost of Living in Large Cities, 1935 to November 1943*

Year	Indexes [1] (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent [2]	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.6
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943:							
Jan. 15	120.7	133.0	126.0	108.0	107.3	123.8	113.2
Feb. 15	121.0	133.6	126.2	108.0	107.2	124.1	113.6
Mar. 15	122.8	137.4	127.6	108.0	107.4	124.5	114.5
Apr. 15	124.1	140.6	127.9	108.0	107.5	124.8	114.9
May 15	125.1	143.0	127.9	108.0	107.6	125.1	115.5
June 15	124.8	141.9	127.9	108.0	107.7	125.4	115.7
July 15	123.9	139.0	129.1	108.0	107.6	125.6	116.1
Aug. 15	123.4	137.2	129.6	108.0	107.7	125.9	116.5
Sept. 15	123.9	137.4	132.5	108.0	107.7	126.3	117.0
Oct. 15	124.4	138.2	133.0	(1)	107.9	126.5	117.6
Nov. 15	124.1	137.3	133.0	(2)	108.0	126.5	117.7

[1] Based on changes in cost of goods purchased by wage earners and lower-salaried workers in large cities.
[2] Rents collected at quarterly dates—Mar. 15, June 15, Sept. 15, and Dec. 15.

Retail Prices of Food in November 1943

PERCENTAGE changes in retail food costs on November 16, 1943, as compared with costs in October 1943, September and November 1942, January 1941, and August 1939, are given in table 1.

TABLE 1.—*Percent of Change in Retail Prices of Food in 56 Large Cities Combined,[1] in Specified Periods, by Commodity Groups*

Commodity group	Oct. 19, 1943, to Nov. 16, 1943	Nov. 17, 1942, to Nov. 16, 1943	Sept. 15, 1942, to Nov. 16, 1943	Jan. 14, 1941, to Nov. 16, 1943	Aug. 15, 1939, to Nov. 16, 1943
All foods	−0.7	+4.7	+8.5	+40.4	+46.8
Cereals and bakery products	0	+2.5	+2.8	+14.1	+16.0
Meats	−.2	−1.1	−.2	+29.0	+36.3
Beef and veal	−.8	−6.0	−5.6	+8.8	+19.5
Pork	−.2	−9.2	−8.6	+31.6	+28.8
Lamb	−1.0	−.4	−.1	+35.3	+35.1
Chickens	−.3	+9.7	+9.6	+50.7	+54.9
Fish, fresh and canned	+3.3	+25.7	+32.9	+88.4	+124.5
Dairy products	0	+1.3	+4.5	+27.0	+43.4
Eggs	+.4	+14.7	+22.9	+95.9	+110.4
Fruits and vegetables	−2.3	+14.9	+35.4	+74.3	+76.0
Fresh	−2.7	+17.6	+30.5	+82.1	+83.3
Canned	−.1	+2.4	+4.9	+42.1	+41.8
Dried	+.6	+8.6	+13.3	+63.2	+80.0
Beverages	−.2	+.2	+.8	+37.3	+31.5
Fats and oils	−1.2	+.6	+3.6	+55.7	+47.9
Sugar and sweets	−.2	−.3	−.3	+32.8	+32.4

[1] The number of cities included in the index was changed from 51 to 56 in March 1943, with the necessary adjustments for maintaining comparability. At the same time the number of foods in the index was increased from 54 to 61.

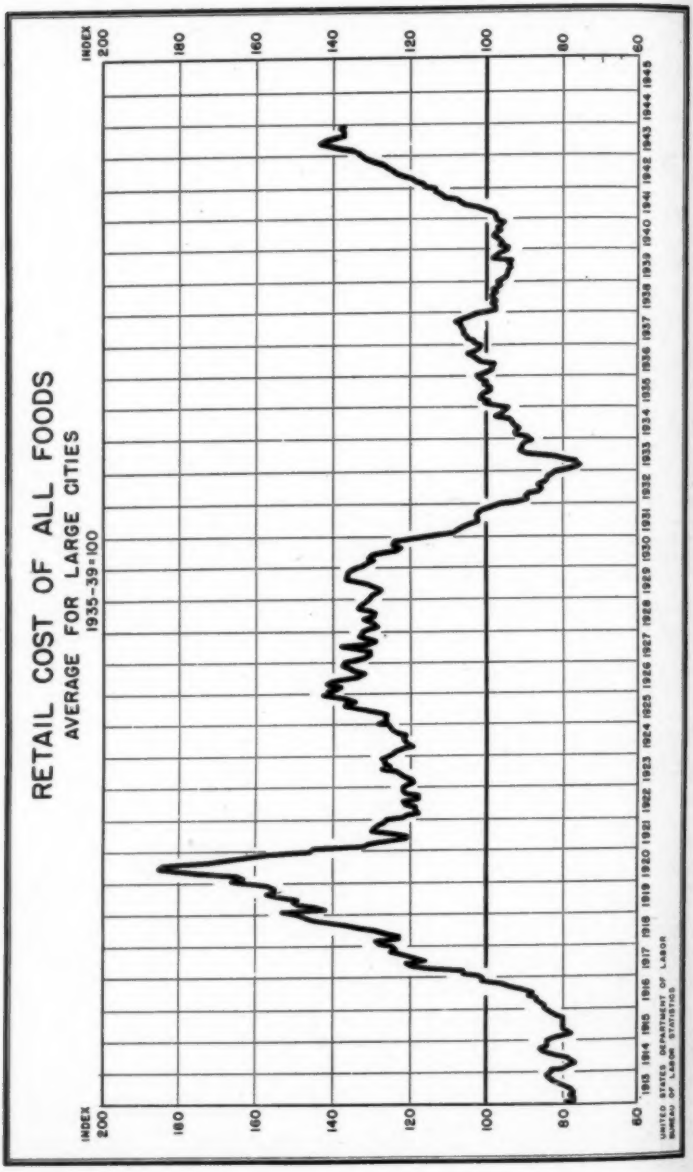
Indexes of retail food costs, by commodity groups, are shown in table 2 for specified months between August 1939 and November 1943.

TABLE 2.—*Indexes of Retail Costs of Food in 56 [1] Large Cities Combined,[2] by Commodity Groups, in Specified Months*

[1935–39=100]

Commodity group	1943		1942		1941	1939
	Nov. 16 [3]	Oct. 19	Nov. 17	Sept. 15	Jan. 14	Aug. 15
All foods	137.3	138.2	131.1	126.6	97.8	93.5
Cereals and bakery products	108.3	108.3	105.7	105.4	94.9	93.4
Meats	130.4	130.6	131.9	130.6	101.1	95.7
Beef and veal	119.0	119.9	126.6	126.0	109.4	99.6
Pork	113.3	113.5	124.8	124.0	86.1	88.0
Lamb	133.5	134.9	134.0	133.7	98.7	98.8
Chickens	146.5	147.0	133.5	133.7	97.2	94.6
Fish, fresh and canned	223.6	216.5	177.9	168.2	118.7	99.6
Dairy products	133.5	133.5	131.8	127.7	105.1	93.1
Eggs	190.8	190.1	166.3	155.2	97.4	90.7
Fruits and vegetables	162.6	166.4	141.5	129.7	93.3	92.4
Fresh	170.1	174.9	144.6	130.3	93.4	92.8
Canned	129.9	130.0	126.8	123.8	91.4	91.6
Dried	162.5	161.5	149.7	143.4	99.6	90.3
Beverages	124.8	[4]125.1	124.6	123.8	90.9	94.9
Fats and oils	125.0	126.5	124.2	120.7	80.3	84.5
Sugar and sweets	126.6	126.8	127.0	127.0	95.3	95.6

[1] Indexes based on 51 cities combined prior to March 1943.
[2] Aggregate costs of 61 foods (54 foods prior to March 1943) in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[3] Preliminary.
[4] Revised.


RETAIL COST OF ALL FOODS
AVERAGE FOR LARGE CITIES
1935-39=100
INDEX
200
180
160
140
120
100
80
60
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UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

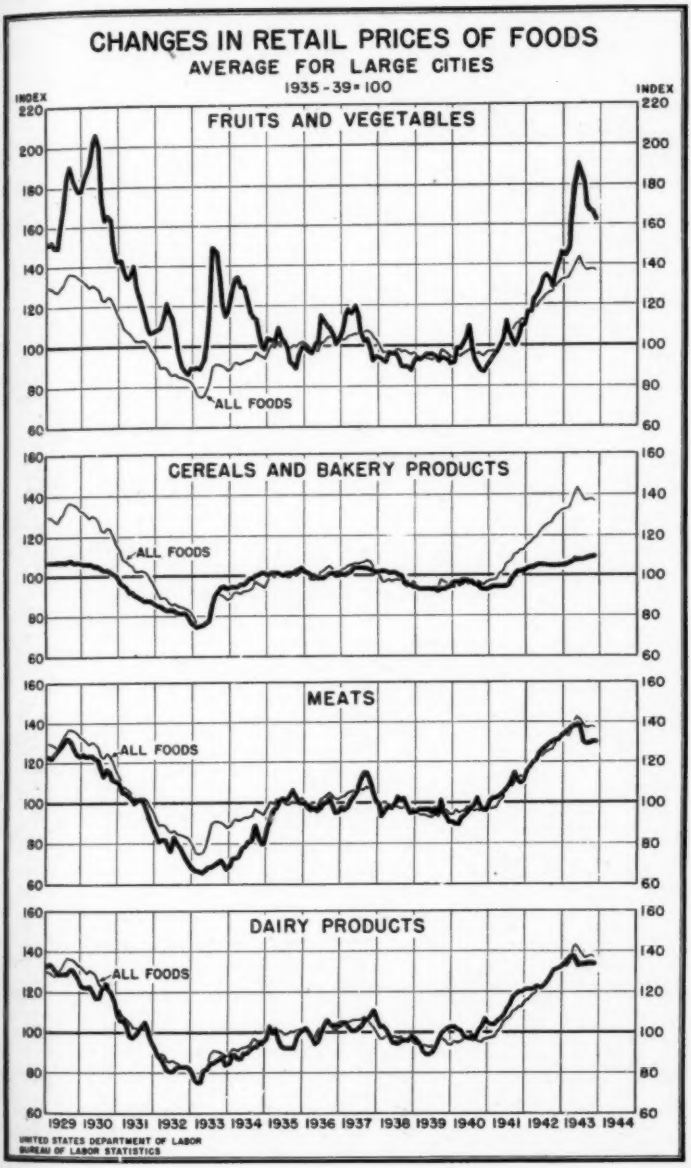

CHANGES IN RETAIL PRICES OF FOODS
AVERAGE FOR LARGE CITIES
1935-39=100
INDEX
FRUITS AND VEGETABLES
ALL FOODS
CEREALS AND BAKERY PRODUCTS
ALL FOODS
MEATS
ALL FOODS
DAIRY PRODUCTS
ALL FOODS
1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 3.—*Average Retail Prices of 78 Foods in 56 Large Cities Combined,*[1] *September, October, and November 1943, September and November 1942, and January 1941*

Article	1943			1942		1941
	Nov. 16 [2]	Oct. 19	Sept. 14	Nov. 17	Sept. 15	Jan. 14
Cereals and bakery products:						
Cereals:	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat—10 pounds	63.0	62.6	62.1	55.4	54.3	41.4
Macaroni—pound	15.6	15.6	15.7	14.1	14.1	13.8
Wheat cereal [3]—28 ounces	23.3	23.4	[4] 23.4	24.1	24.0	23.5
Corn flakes—8 ounces	6.6	6.6	6.6	7.0	7.0	7.1
Corn meal—pound	5.9	5.9	5.9	5.1	5.0	4.2
Rice [3]—do	12.8	12.7	12.7	12.6	12.5	7.9
Rolled oats—do	8.7	8.7	8.7	8.8	8.7	7.1
Flour, pancake [3]—20 ounces	11.4	11.6	10.6	(5)	(5)	(5)
Bakery products:						
Bread, white—pound	8.9	8.9	8.9	8.7	8.7	7.8
Bread, whole-wheat—do	9.8	9.8	9.7	9.6	9.5	8.7
Bread, rye—do	10.1	10.1	10.1	9.7	9.7	9.0
Vanilla cookies—do	28.4	28.5	28.8	26.5	27.0	25.1
Soda crackers—do	18.7	18.5	18.5	16.6	16.6	15.0
Meats:						
Beef:						
Round steak—do	41.9	41.9	41.5	44.5	44.2	38.6
Rib roast—do	33.8	34.0	33.8	34.7	34.7	31.5
Chuck roast—do	29.0	29.2	29.0	30.2	30.0	25.2
Stew meat [3]—do	31.3	31.1	30.9	(5)	(5)	(5)
Liver—do	36.9	37.0	36.3	(5)	(5)	(5)
Hamburger—do	28.5	28.7	28.5	(5)	(5)	(5)
Veal:						
Cutlets—do	45.0	46.3	45.8	55.1	54.9	45.2
Roast, boned and rolled [3]—do	36.2	36.7	35.2	(5)	(5)	(5)
Pork:						
Chops—do	37.7	37.7	37.9	43.0	43.1	39.1
Bacon, sliced—do	41.5	41.8	42.0	40.8	40.9	39.1
Ham, sliced—do	51.7	51.8	52.2	59.7	59.6	45.1
Ham, whole—do	35.8	35.7	36.0	38.5	38.3	28.2
Salt pork—do	22.8	22.7	22.7	23.5	23.8	16.7
Liver [3]—do	22.2	22.2	22.2	(5)	(5)	(5)
Sausage [3]—do	38.5	38.3	38.2	(5)	(5)	(5)
Bologna, big [3]—do	34.5	34.6	34.5	(5)	(5)	(5)
Lamb:						
Leg—do	40.2	40.4	40.2	38.4	37.9	27.8
Rib chops—do	45.3	45.8	46.0	46.5	47.1	35.0
Poultry:						
Roasting chickens—do	44.0	44.1	[4] 44.8	42.7	42.5	31.1
Fish:						
Fish (fresh, frozen)—do	(5)	(5)	(5)	(5)	(5)	(5)
Salmon, pink—16-oz. can	23.5	23.5	23.6	22.2	21.8	15.7
Salmon, red [3]—do	41.2	41.3	41.7	40.6	40.6	26.4
Dairy products:						
Butter—pound	50.3	50.5	50.5	54.6	50.6	38.0
Cheese—do	35.9	35.9	37.0	36.1	34.3	27.0
Milk, fresh (delivered)—quart	15.6	15.5	15.5	15.1	15.0	13.0
Milk, fresh (store)—do	14.4	14.4	14.4	13.5	13.5	11.9
Milk, fresh (delivered and store) [3]—do	15.2	15.1	15.1	14.5	14.5	12.7
Milk, evaporated—14½-oz. can	10.0	10.0	10.1	9.2	8.9	7.1
Eggs:						
Eggs, fresh—dozen	67.4	67.2	62.7	59.0	55.2	34.9
Fruits and vegetables:						
Fresh fruits:						
Apples—pound	10.2	10.6	10.7	6.7	6.2	5.2
Bananas—do	12.2	12.3	12.3	10.7	10.3	6.6
Oranges—dozen	45.7	51.8	51.8	45.0	39.1	27.3
Grapefruit [3]—each	9.4	10.0	10.1	6.8	9.4	(7)
Fresh vegetables:						
Beans, green—pound	18.5	17.7	15.3	17.6	11.6	14.0
Cabbage—do	4.5	4.6	4.9	3.6	3.9	3.4
Carrots—bunch	9.8	9.6	9.0	9.8	6.9	6.0
Lettuce—head	13.0	13.1	13.1	14.9	12.5	8.4
Onions—pound	7.1	6.8	7.3	4.7	4.5	3.6
Potatoes—15 pounds	61.6	61.0	60.6	51.6	48.3	29.2
Spinach—pound	9.6	10.1	12.5	10.5	10.7	7.3
Sweetpotatoes—do	8.9	8.3	10.2	5.2	6.4	5.0
Beets [3]—bunch	8.7	8.0	8.3	(5)	(5)	(5)
Canned fruits:						
Peaches—No. 2½ can	26.4	26.4	26.7	25.0	24.0	16.5
Pineapple—do	27.9	27.9	28.0	29.1	28.3	20.9
Grapefruit juice—No. 2 can	14.4	14.4	14.4	13.1	12.4	(7)

See footnotes at end of table.

TABLE 3.—*Average Retail Prices of 78 Foods in 56 Large Cities Combined,[1] September, October, and November 1943, September and November 1942, and January 1941*—Continued

Article	1943			1942		1941
	Nov. 16 [2]	Oct. 19	Sept. 14	Nov. 17	Sept. 15	Jan. 14
Fruits and vegetables—Continued.						
Canned vegetables:	Cents	Cents	Cents	Cents	Cents	Cents
Beans, green, No. 2 can	14.4	14.5	14.6	13.9	13.7	10.0
Corn, do	14.2	14.1	14.0	13.6	13.3	10.7
Peas, do	14.5	14.5	14.4	14.7	14.6	13.2
Tomatoes, do	12.3	12.4	12.5	11.9	11.6	8.4
Soup, vegetable [3], 11 oz. can	12.9	12.7	12.8	(4)	(4)	(4)
Dried fruits: Prunes, pound	16.7	16.6	16.5	15.8	14.8	9.6
Dried vegetables:						
Navy beans, do	10.5	10.3	10.2	9.2	9.1	6.5
Soup, dehydrated, chicken noodle [3], ounce	3.7	3.7	3.7	(4)	(4)	(4)
Beverages:						
Coffee, pound	29.8	29.9	30.0	28.1	28.7	20.7
Tea, ¼ pound	23.6	[5] 23.4	23.5	21.9	22.4	17.6
Cocoa [3], ½ pound	9.5	9.2	9.1	10.2	10.2	9.1
Fats and oils:						
Lard, pound	18.9	18.9	18.9	18.4	17.3	9.3
Shortening other than lard—						
In cartons, do	20.0	20.1	20.0	19.6	19.5	11.3
In other containers, do	24.9	24.9	24.8	24.4	24.4	18.3
Salad dressing, pint	25.4	25.5	25.3	25.1	25.2	20.1
Oleomargarine, pound	24.0	24.0	24.0	22.5	22.4	15.6
Peanut butter, do	31.0	33.4	33.4	29.0	27.8	17.9
Oil, cooking or salad [3], pint	30.7	30.6	30.5	(4)	(4)	(4)
Sugar and sweets:						
Sugar, pound	6.8	6.8	6.8	6.9	6.9	5.1
Corn sirup, 24 ounces	15.9	15.9	15.9	15.3	15.1	13.6
Molasses [3], 18 ounces	15.9	15.8	15.9	15.1	14.9	13.4
Apple butter [3], 16 ounces	13.2	13.0	13.2	(4)	(4)	(4)

[1] Data are based on 51 cities combined prior to January 1943.
[2] Preliminary.
[3] Not included in index.
[4] Revised.
[5] First priced February 1943.
[6] Composite prices not computed.
[7] First priced October 1941.

TABLE 4.—*Indexes of Average Retail Cost of All Foods, by Cities,[1] October and November 1943, November 1942, and January 1941*

[1935–39=100]

City	1943		1942	1941	City	1943		1942	1941
	Nov. 16 [2]	Oct. 19	Nov. 17	Jan. 14		Nov. 16 [2]	Oct. 19	Nov. 17	Jan. 14
United States	137.3	138.2	131.1	97.8	South Atlantic:				
New England:					Atlanta	137.5	140.3	129.2	94.3
Boston	131.4	133.1	130.4	95.2	Baltimore	142.4	147.0	134.9	97.9
Bridgeport	136.7	137.1	130.1	96.5	Charleston, S. C.	134.8	137.1	127.6	93.9
Fall River	133.2	135.2	130.6	97.5	Jacksonville	144.9	146.8	137.1	98.6
Manchester	133.8	134.5	130.0	96.6	Norfolk [4]	144.8	148.3	135.4	95.8
New Haven	137.1	138.6	130.3	95.7	Richmond	136.5	137.1	128.9	98.7
Portland, Maine	134.5	134.3	130.0	95.3	Savannah	150.4	152.2	136.0	100.5
Providence	136.2	136.9	129.7	96.3	Washington, D. C.	137.5	140.2	130.5	97.7
Middle Atlantic:					Winston-Salem [3]	138.2	139.4	124.1	99.7
Buffalo	137.8	138.5	133.7	100.2	East South Central:				
Newark	139.5	140.8	133.6	98.8	Birmingham	141.7	141.8	127.7	96.0
New York	139.3	138.7	130.2	99.5	Jackson [3]	145.8	147.5	144.1	103.2
Philadelphia	135.4	137.1	128.2	95.0	Knoxville [3]	158.2	157.5	136.1	97.1
Pittsburgh	138.0	138.2	129.6	98.0	Louisville	134.2	135.0	127.5	95.5
Rochester	132.4	133.1	129.2	99.9	Memphis	143.9	144.4	134.4	94.2
Scranton	137.0	138.7	130.3	97.5	Mobile	145.4	147.5	137.6	97.9
East North Central:					West South Central:				
Chicago	133.9	136.6	129.9	98.2	Dallas	136.0	137.1	125.1	92.6
Cincinnati	134.9	136.1	130.6	96.5	Houston	136.9	138.4	132.4	102.6
Cleveland	143.1	143.9	132.5	99.2	Little Rock	134.5	133.4	130.3	93.6
Columbus, Ohio	131.7	131.7	124.4	93.4	New Orleans	149.9	152.1	140.7	101.9
Detroit	133.3	134.5	129.6	97.0	Mountain:				
Indianapolis	134.0	135.4	129.7	98.2	Butte	136.9	136.5	131.3	98.7
Milwaukee	134.0	135.4	126.8	95.9	Denver	136.8	135.3	129.9	94.8
Peoria	141.5	141.3	134.6	99.0	Salt Lake City	142.6	140.5	136.1	97.5
Springfield, Ill.	140.9	141.6	134.3	96.2	Pacific:				
West North Central:					Los Angeles	144.4	143.3	141.5	101.8
Cedar Rapids [3]	139.0	138.0	125.6	95.9	Portland, Oreg.	145.0	144.6	143.0	101.7
Kansas City	132.7	132.6	125.0	92.4	San Francisco	143.7	142.4	139.3	99.6
Minneapolis	132.2	132.3	128.9	99.0	Seattle	143.6	142.8	141.3	101.0
Omaha	131.8	132.5	127.0	97.9					
St. Louis	138.7	139.1	130.8	99.2					
St. Paul	131.3	130.5	127.1	98.6					
Wichita [3]	146.7	145.8	136.6	97.2					

[1] Aggregate costs of 61 foods in each city (54 foods prior to March 1943), weighted to represent total purchases of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.

[2] Preliminary.

[3] Indexes based on June 1940=100.

[4] Includes Portsmouth and Newport News.

TABLE 5.—*Indexes of Retail Food Costs in 56 Large Cities Combined,[1] 1913 to November 1943*

[1935–39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index
1913	79.9	1928	130.8	*1943*	
1914	81.8	1929	132.5		
1915	80.9	1930	126.0	January	133.0
1916	90.8	1931	103.9	February	133.6
1917	116.9	1932	86.5	March	137.4
1918	134.4	1933	84.1	April	140.6
1919	149.8	1934	93.7	May	141.0
1920	168.8	1935	100.4	June	141.9
1921	128.3	1936	101.3	July	138.0
1922	119.9	1937	105.3	August	137.2
1923	124.0	1938	97.8	September	137.4
1924	122.8	1939	95.2	October	138.2
1925	132.9	1940	96.6	November	137.3
1926	137.4	1941	105.5		
1927	132.3	1942	123.9		

[1] Indexes based on 51 cities combined prior to March 1943.

Coal Prices in September 1943

RETAIL prices of bituminous coal in September 1943 were 2 percent higher than in June, while Pennsylvania anthracite prices decreased about two-tenths of 1 percent during the 3-month period. There were slight reductions in prices to the consumers in many cities as a result of lower freight costs. These reductions in the fuel bill were offset for bituminous coal by higher maximum prices permitted by OPA regulations in certain cities for some sizes and kinds.

Price increases between June and September were small, and few amounted to more than 5 cents per ton. The largest increases were in Savannah where prices of eastern high-volatile coals rose by about 50 cents per ton, in New Orleans where the rise was about 45 cents, and in Denver where prices for western high-volatile coals showed a general advance of from 23 to 57 cents per ton for various sizes because of higher maximum prices. No increases had been allowed in the Denver area earlier in the year to cover higher production costs (including the longer workday for miners).

The average increase during the year ending September 15, 1943, was about 50 cents a ton for bituminous coal and 60 cents for Pennsylvania anthracite. Advances for low-volatile and eastern high-volatile bituminous coals were slightly larger than for western high-volatile coal. In Milwaukee there was an average increase, during the year, of a little more than $1 a ton for low volatile coal; Minneapolis and St. Paul reported advances averaging about $1.30 for low-volatile coal and $1 for eastern high-volatile coal; and in Denver western high-volatile coals were about 90 cents higher than in September 1942. The greatest increase in costs of coal to domestic consumers was in Seattle where a large part of the usual supply from nearby fields was taken over for Government projects and was replaced by coals shipped from distant points. As a result, coal prices in Seattle were about $2 per ton higher than in September 1942. Increases for Pennsylvania anthracite for the year were between 50 and 70 cents a ton in most of the cities where this is an important domestic fuel.

Average prices of coal, together with indexes for bituminous coal and stove and chestnut sizes of Pennsylvania anthracite, are presented in the accompanying table for September and June 1943 and September 1942.

Average Retail Prices of Coal in Large Cities Combined, September and June 1943 and September 1942

Kind of coal	Average retail price per ton of 2,000 pounds			Index of retail price (October 1922–September 1935=100)			Percent of change, Sept. 15, 1943, compared with—	
	1943		1942	1943		1942	1943	1942
	Sept. 15 [1]	June 15	Sept. 15	Sept. 15 [1]	June 15	Sept. 15	June 15	Sept. 15
Bituminous coal (35 cities), old series [2]	$10.02	[3] $9.99	$9.54	101.6	101.4	97.0	+2.0	+4.7
Pennsylvania anthracite (25 cities), new series: [4]								
Stove	13.05	13.08	12.42	92.7	92.9	88.2	−.2	+5.1
Chestnut	13.11	13.14	12.48	93.3	93.5	88.8	−.2	+5.1
Pea	11.17	11.19	10.55	.....	.....	.....	−.2	+5.9
Buckwheat	9.07	9.11	8.57	.....	.....	.....	−.4	+5.8
Western anthracite:								
Arkansas (6 cities)	14.71	14.50	13.63	.....	.....	.....	+1.4	+7.9
Colorado (1 city)	16.62	15.93	15.85	.....	.....	.....	+4.3	+4.9
New Mexico (1 city)	[5]	24.72	24.72	.....	.....	.....	[5]	[5]

[1] Preliminary.
[2] Unweighted average; weighted composite prices are in preparation.
[3] Revised.
[4] Weighted on the basis of the distribution by rail or rail and tidewater to each city during the 12-month period from Aug. 1, 1935, to July 31, 1936.
[5] Insufficient data.

Wholesale Prices in November 1943

DURING November the Bureau of Labor Statistics index of commodity prices in primary markets [1] again dropped 0.1 percent. The average price level stood at 102.9 percent of the 1926 average. It was the sixth consecutive month during which prices either declined or remained the same. Continued weakness in markets for livestock and poultry and a decline of 6.5 percent for hides and skins were primarily responsible for the decrease. The all-commodity index for the month was slightly more than 2½ percent above November 1942.

Average market prices for farm products dropped 0.7 percent during the month of November, while foods rose 0.7 percent. Hides and leather products declined 1.1 percent and chemicals and allied products, 0.1 percent. The index for building materials rose 0.4 percent; fuel and lighting materials and housefurnishing goods, 0.2 percent; and textile products, metals and metal products, and miscellaneous commodities, 0.1 percent.

In the farm products group important commodities showing price declines were cattle, ranging from 7.9 percent for hogs to 1.2 percent for steers, and sheep, with wethers showing the greatest decrease of 16.1 percent. Quotations for cotton were off 4 percent and prices of eggs in most markets were down. Higher prices were reported for grains (except barley, which dropped 1 percent), for apples (Chicago market), lemons, onions, both white and sweet potatoes, and wool.

The general level of food prices in primary markets was 0.7 percent higher. Quotations for fruits and vegetables advanced 3 percent, with higher prices reported for lemons, canned cherries, dried peaches and apricots, apples (Chicago), potatoes and onions, and canned tomatoes. Dairy products rose 1.6 percent as a result of higher quotations for milk at New York and Chicago. Butter prices were lower in the Chicago and Philadelphia markets.

Reflecting sharp increases for sheepskins, the general average for hides and leather products moved upward more than 1 percent.

Upward adjustments in prices for ginghams and men's and boys' union suits, together with higher quotations for burlap, caused the textile products group index to rise fractionally.

Higher quotations for natural gasoline in the Oklahoma fields and for coke, bituminous coal, and anthracite contributed to the rise of 0.2 percent for the fuel and lighting materials group.

An increase of 2.1 percent in prices for radiation resulted in a slight rise of the index for the metals and metal products group.

[1] The Bureau of Labor Statistics wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points

In the building materials group, prices for lumber averaged nearly 1 percent above the October level as a result of Office of Price Administration ceiling adjustments. Quotations for drain tile, common brick, rosin, and turpentine also rose sharply. Reductions were reported for butyl acetate and linseed oil.

Lower prices for calcium carbide more than offset a price increase for synthetic camphor, and the average for chemicals and allied products dropped 0.1 percent.

Prices of wooden household furniture rose slightly because of higher quotations for dressers, vanities, and beds. The index for the house-furnishing goods group was 0.2 percent higher.

Advancing prices for boxboard caused a rise in the index for paper and pulp. Quotations for neutral cylinder oil at Pennsylvania refineries were higher. Prices for cigar boxes declined.

In the past 12 months, prices for agricultural commodities have had a dominant influence on price movements in primary markets. Grains and fresh fruits and vegetables have shown the greatest increases, 32.8 percent and 16.2 percent, respectively. On the other hand, average prices for meats declined 5.1 percent and fractional decreases were reported for livestock and poultry and dairy products from November 1942 to November 1943.

Important industrial commodities showing substantial increases over their November 1942 levels were paper and pulp products, lumber, and fuel and lighting materials. Hides and skins and plumbing and heating equipment registered sharp decreases over the year period. The more important of the other industrial commodities showed moderate increases over their November 1942 levels.

From comparatively low pre-war levels, prices for most commodities averaged considerably higher in November 1943. Prices for industrial fats and oils in November were 151 percent higher than in August 1939; grains, 139 percent; cattle feed, 133 percent; drugs and pharmaceuticals, 114 percent; fruits and vegetables, over 102 percent; and other farm products, slightly more than 100 percent.

The large groups of "all commoditities other than farm products" and "all commodities other than farm products and foods" were approximately 27 percent and 22 percent over their respective pre-war levels. The all-commodity index for November 1943 was 37.2 percent above the August 1939 average.

Percentage comparisons of the November 1943 level of wholesale prices with October 1943, November 1942, and August 1939, with corresponding index numbers, are given in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, November 1943, October 1943, November 1942, and August 1939*

[1926=100]

Group and subgroup	November 1943	October 1943	Percent of change	November 1942	Percent of change	August 1939	Percent of increase
All commodities	102.9	103.0	−0.1	100.3	+2.6	75.0	37.2
Farm products	121.4	122.2	−.7	110.5	+9.9	61.0	99.0
Grains	123.2	122.5	+.6	92.8	+32.8	51.5	139.2
Livestock and poultry	120.5	126.1	−4.4	121.3	−.7	66.0	82.6
Other farm products	120.5	118.9	+1.3	108.0	+11.6	60.1	100.5

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, November 1943, October 1943, November 1942, and August 1939*—Continued

[1926=100]

Group and subgroup	November 1943	October 1943	Percent of change	November 1942	Percent of change	August 1939	Percent of increase
Foods	105.8	105.1	+0.7	103.5	+2.2	67.2	57.4
Dairy products	110.9	109.1	+1.6	111.2	−.3	67.9	63.3
Cereal products	94.7	94.7	0	89.5	+5.8	71.9	31.7
Fruits and vegetables	118.5	115.1	+3.0	102.0	+16.2	58.5	102.6
Meats	106.3	106.2	+.1	112.0	−5.1	73.7	44.2
Other foods	99.5	99.6	−.1	95.9	+3.8	60.3	65.0
Hides and leather products	116.5	117.8	−1.1	117.8	−1.1	92.7	25.7
Shoes	126.4	126.4	0	126.4	0	100.8	25.4
Hides and skins	108.5	116.0	−6.5	116.0	−6.5	77.2	40.5
Leather	101.3	101.3	0	101.3	0	84.0	20.6
Other leather products	115.2	115.2	0	115.2	0	97.1	18.6
Textile products	97.7	97.6	+.1	97.1	+.6	67.8	44.1
Clothing	107.0	107.0	0	107.0	0	81.5	31.3
Cotton goods	112.9	112.9	0	112.4	+.4	65.5	72.4
Hosiery and underwear	71.7	71.4	+.4	70.5	+1.7	61.5	16.6
Rayon	30.3	30.3	0	30.3	0	28.5	6.3
Silk	(1)	(1)		(1)		44.3	
Woolen and worsted goods	112.5	112.5	0	111.7	+.7	75.5	49.0
Other textile products	100.5	99.2	+1.3	97.6	+3.0	63.7	57.8
Fuel and lighting materials	81.2	81.0	+.2	79.1	+2.7	72.6	11.8
Anthracite	90.6	89.9	+.8	85.7	+5.7	72.1	25.7
Bituminous coal	116.6	116.4	+.2	111.4	+4.7	96.0	21.5
Coke	124.1	122.4	+1.4	122.1	+1.6	104.2	19.1
Electricity	(1)	(1)		62.3		75.8	
Gas	(1)	77.2		78.4		86.7	
Petroleum and products	63.5	63.5	0	60.7	+4.6	51.7	22.8
Metals and metal products	103.8	103.7	+.1	103.8	0	93.2	11.4
Agricultural implements	96.9	96.9	0	96.9	0	93.5	3.6
Farm machinery	98.1	98.1	0	98.0	+.1	94.7	3.6
Iron and steel	97.1	97.1	0	97.2	−.1	95.1	2.1
Motor vehicles	112.8	112.8	0	112.8	0	92.5	21.9
Nonferrous metals	86.0	86.0	0	86.0	0	74.6	15.3
Plumbing and heating	91.8	90.2	+1.8	93.2	−1.5	79.3	15.8
Building materials	113.1	112.7	+.4	110.1	+2.7	89.6	26.2
Brick and tile	100.0	99.0	+1.0	98.6	+1.4	90.5	10.5
Cement	93.6	93.6	0	94.2	−.6	91.3	2.5
Lumber	143.9	143.1	+.6	133.1	+8.1	90.1	59.7
Paint and paint materials	103.2	102.8	+.4	100.7	+2.5	82.1	25.7
Plumbing and heating	91.8	90.2	+1.8	93.2	−1.5	79.3	15.8
Structural steel	107.3	107.3	0	107.3	0	107.3	0
Other building materials	102.2	102.2	0	102.9	−.7	89.5	14.2
Chemicals and allied products	100.3	100.4	−.1	99.5	+.8	74.2	35.2
Chemicals	96.3	96.4	−.1	96.2	+.1	83.8	14.9
Drugs and pharmaceuticals	165.2	165.2	0	165.4	−.1	77.1	114.3
Fertilizer materials	81.3	81.3	0	78.6	+3.4	65.5	24.1
Mixed fertilizers	85.8	85.8	0	82.8	+3.6	73.1	17.4
Oils and fats	102.0	102.0	0	101.5	+.5	40.6	151.2
Housefurnishing goods	102.8	102.6	+.2	102.5	+.3	85.6	20.1
Furnishings	107.1	107.1	0	107.3	−.2	90.0	19.0
Furniture	98.4	98.1	+.3	97.4	+1.0	81.1	21.3
Miscellaneous	93.2	93.1	+.1	90.1	+3.4	73.3	27.1
Automobile tires and tubes	73.0	73.0	0	73.0	0	60.5	20.7
Cattle feed	159.6	159.6	0	132.1	+20.8	68.4	133.3
Paper and pulp	105.8	105.6	+.2	98.8	+7.1	80.0	32.3
Rubber, crude	46.2	46.2	0	46.3	−.2	34.9	32.4
Other miscellaneous	96.5	96.4	+.1	95.1	+1.5	81.3	18.7
Raw materials	111.3	111.9	−.5	103.9	+7.1	66.5	67.4
Semimanufactured articles	92.9	92.9	0	92.6	+.3	74.5	24.7
Manufactured products	100.2	100.0	+.2	99.4	+.8	79.1	26.7
All commodities other than farm products	98.8	98.7	+.1	97.9	+.9	77.9	26.8
All commodities other than farm products and foods	97.4	97.3	+.1	95.8	+1.7	80.1	21.6

[1] Data not available.

Index Numbers by Commodity Groups, 1926 to November 1943

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1942, and by months from November 1942 to November 1943, are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
1942	105.9	99.6	117.7	96.9	78.5	103.8	110.2	97.1	102.4	89.7	98.8
1942											
November	110.5	103.5	117.8	97.1	79.1	103.8	110.1	99.5	102.5	90.1	100.3
December	113.8	104.3	117.8	97.2	79.2	103.8	110.0	99.5	102.5	90.5	101.0
1943											
January	117.0	105.2	117.8	97.3	79.3	103.8	109.8	100.2	102.5	90.7	101.9
February	119.0	105.8	117.8	97.3	79.8	103.8	110.2	100.3	102.6	90.9	102.5
March	122.8	107.4	117.8	97.3	80.3	103.8	110.4	100.0	102.6	91.4	103.4
April	123.9	108.4	117.8	97.4	80.6	103.8	110.3	100.1	102.6	91.6	103.7
May	125.7	110.5	117.8	97.4	80.8	103.8	110.5	100.2	102.7	91.9	104.1
June	126.2	109.6	117.8	97.4	81.0	103.8	110.6	100.0	102.8	91.8	103.8
July	125.0	107.2	117.8	97.4	81.0	103.7	110.7	100.1	102.6	92.3	103.2
August	123.5	105.8	117.8	97.4	80.9	103.7	112.2	100.2	102.6	92.6	103.1
September	123.1	105.0	117.8	97.5	81.0	103.7	112.5	100.3	102.6	93.0	103.1
October	122.2	105.1	117.8	97.6	81.0	103.7	112.7	100.4	102.6	93.1	103.0
November	121.4	105.8	116.5	97.7	81.2	103.8	113.1	100.3	102.8	93.3	102.9

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 to 12 of Wholesale Prices, December and Year 1941 (Serial No. R. 1434).

TABLE 3.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	*1943*					
1929	97.5	93.9	94.5	93.3	91.6						
1932	55.1	59.3	70.3	68.3	70.2	Jan.	108.2	92.8	100.1	98.5	96.0
1933	56.5	65.4	70.5	69.0	71.2	Feb.	109.6	92.9	100.3	98.7	96.2
1936	79.9	75.9	82.0	80.7	79.6	Mar.	112.0	93.0	100.5	99.0	96.5
						Apr.	112.8	93.1	100.6	99.1	96.6
1937	84.8	85.3	87.2	86.2	85.3	May	114.0	93.0	100.7	99.2	96.7
1938	72.0	75.4	82.2	80.6	81.7	June	114.3	92.8	100.1	98.7	96.8
1939	70.2	77.0	80.4	79.5	81.3						
1940	71.9	79.1	81.6	80.8	83.0	July	113.6	92.8	99.6	98.3	96.9
1941	83.5	86.9	89.1	88.3	89.0	Aug.	112.7	92.9	99.7	98.5	97.1
1942	100.6	92.6	98.6	97.0	95.5	Sept.	112.4	92.9	99.9	98.6	97.2
1943						Oct.	111.9	92.9	100.0	98.7	97.3
Nov.	103.9	92.6	99.4	97.9	95.8	Nov.	111.3	92.9	100.2	98.8	97.4
Dec.	106.1	92.5	99.6	98.1	95.9						

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during October and November 1943 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, October and November 1943*

[1926=100]

Commodity group	Nov. 27	Nov. 20	Nov. 13	Nov. 6	Oct. 30	Oct. 23	Oct. 16	Oct. 9	Oct. 2
All commodities	102.6	102.6	102.8	102.9	102.8	102.9	102.9	102.8	103.0
Farm products	121.2	121.2	122.1	122.8	122.2	122.7	122.8	122.7	123.6
Foods	105.8	105.6	105.5	105.7	105.0	104.8	104.7	104.9	105.0
Hides and leather products	116.9	118.4	118.4	118.4	118.4	118.4	118.4	118.4	118.4
Textile products	97.2	97.2	97.2	97.2	97.2	97.1	97.1	97.0	97.0
Fuel and lighting materials	81.7	81.6	81.6	81.6	81.6	81.8	81.8	81.8	81.7
Metals and metal products	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8
Building materials	113.0	113.0	113.0	113.0	112.8	112.6	112.5	112.5	112.5
Chemicals and allied products	100.4	100.4	100.4	100.4	100.4	100.3	100.3	100.3	100.3
Housefurnishing goods	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
Miscellaneous	93.0	93.0	93.0	92.9	92.9	92.9	92.9	93.1	93.1
Raw materials	111.1	111.3	111.7	112.1	111.8	112.1	112.2	112.1	112.5
Semimanufactured articles	92.9	92.9	92.9	92.9	92.8	92.8	92.8	92.8	92.8
Manufactured products	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.2	100.2
All commodities other than farm products	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
All commodities other than farm products and foods	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5

Labor Turnover in Manufacturing, Mining, and Public Utilities, October 1943

THE total separation rate in October 1943 in all manufacturing was 6.91 per 100 employees, which was considerably below the September high of 8.16 and almost 15 percent below the rate in October 1942. In only one month of 1943 was the rate lower. Primarily responsible for the drop in total separations over the year was the slackening in the rate of military separations as reflected in the decline from 1.71 to 0.61 per 100 employees.

October military separations represented less than 10 percent of all separations, while in October 1942 more than 20 percent were in this category. Quits, on the other hand, represented almost 75 percent of all separations in October 1943 as compared with less than 60 percent in October 1942. The discharges and lay-offs together constituted 16 percent of all separations in both periods.

Four of the 10 durable-goods groups of manufacturing industries had a higher quit rate than the average for all manufacturing. Primarily responsible for the high rates in the furniture, lumber, and nonferrous groups was the shifting to higher-paying jobs and general restlessness. Inadequate housing and transportation difficulties were the predominant reasons advanced by firms in the transportation-equipment group, which includes shipbuilding and aircraft industries. Several shipyards reported that, with the approach of winter weather, workers were leaving to get indoor jobs.

The quit rates for women are considerably higher than for men in all of the selected industries for which turnover data for women are compared with those for men. A large number of women who quit indicated their action was necessary because of home duties.

The separation rates in both of the coal-mining industries and all but one of the metal-mining industries were below the rate for all manufacturing. The miscellaneous metal-mining industry (which includes bauxite and other aluminum ores, mercury, manganese, chromium, molybdenum, tungsten, vanadium, and other metallic ores) had the highest separation rate—14.08 per 100 employees. An extremely high lay-off rate of 5.40 per 100 employees in this industry was responsible for the high separation rate.

TABLE 1.—*Monthly Labor Turnover Rates (per 100 Employees) in Manufacturing Industries* [1]

Class of turnover and year	January	February	March	April	May	June	July	August	September	October	November	December
Total separation:												
1943	7.11	7.04	7.69	7.54	6.57	7.07	7.56	8.12	8.16	[2]6.91	.....	.....
1942	5.10	4.82	5.36	6.12	6.54	6.46	6.73	7.06	8.10	7.91	7.09	6.37
1939	3.19	2.61	3.18	3.46	3.48	3.31	3.36	3.01	2.79	2.91	2.95	3.46
Quit:												
1943	4.15	4.65	5.36	5.41	4.81	5.20	5.61	6.24	6.29	[2]5.11	.....	.....
1942	2.36	2.41	3.02	3.59	3.77	3.85	4.02	4.31	5.19	4.65	4.21	3.71
1939	.85	.64	.82	.76	.68	.73	.70	.82	1.07	.93	.83	.69
Discharge:												
1943	.52	.50	.57	.53	.55	.61	.68	.68	.62	[2].63	.....	.....
1942	.30	.29	.33	.35	.38	.38	.43	.42	.44	.45	.43	.46
1939	.10	.10	.13	.10	.13	.12	.12	.14	.14	.17	.15	.12
Lay-off: [3]												
1943	.74	.54	.52	.64	.45	.50	.50	.46	.53	[2].49	.....	.....
1942	1.61	1.39	1.19	1.31	1.43	1.21	1.05	.87	.68	.78	.65	.70
1939	2.24	1.87	2.23	2.60	2.67	2.46	2.54	2.05	1.58	1.81	1.97	2.65
Military:												
1943	1.26	1.23	1.12	.87	.69	.69	.66	.64	.64	[2].61	.....	.....
1942	.67	.56	.63	.68	.68	.78	.93	1.13	1.48	1.71	1.55	1.29
Miscellaneous: [4]												
1943	.14	.12	.12	.09	.07	.07	.08	.08	.08	[2].07	.....	.....
1942	.16	.17	.19	.19	.28	.24	.30	.33	.31	.32	.25	.21
Accession:												
1943	8.28	7.87	8.32	7.43	4.18	8.40	7.83	7.52	7.73	[2]7.06	.....	.....
1942	6.87	6.02	6.99	7.12	7.29	8.25	8.28	7.90	9.15	8.69	8.14	6.92
1939	4.09	3.06	3.34	2.93	3.29	3.92	4.16	5.06	6.17	5.89	4.10	2.84

[1] Turnover rates are not comparable to the employment and pay-roll reports issued monthly by the Bureau of Labor Statistics, as the former are based on data for the entire month, while the latter refer only to pay periods ending nearest the middle of the month. In addition, labor turnover data refer to all employees whereas the employment and pay-roll reports relate only to wage earners. Certain seasonal industries, such as canning and preserving, are not covered by the labor turnover survey and the sample is not as extensive as that of the employment survey, which includes a larger number of small plants.

[2] Preliminary.

[3] Including temporary, indeterminate, and permanent lay-offs.

[4] Data for 1939 included with quits.

TABLE 2.—*Monthly Turnover Rates in Selected Groups and Industries, October 1943*

Industry	Turnover rate per 100 employees									
	Total separation		Quit		Discharge	Lay-off	Military and miscellaneous	Total accession		
	October [1]	September	October [1]	September	October [1]	October [1]	October [1]	October [1]	September	
Manufacturing										
Iron and steel and their products	5.14	5.57	3.58	4.18	0.42	0.36	0.78	4.77	5.22	
Blast furnaces, steel works, and rolling mills	3.75	4.03	2.56	2.95	.17	.22	.80	3.08	3.47	
Gray-iron castings	8.15	8.31	6.02	6.25	.74	.72	.67	7.69	7.68	
Malleable-iron castings	5.36	6.97	4.20	5.80	.41	.09	.66	5.70	5.92	
Steel castings	7.64	8.56	5.57	6.55	.87	.35	.85	6.48	7.50	
Cast-iron pipe and fittings	7.12	5.34	3.82	3.80	.43	1.87	1.00	4.78	6.01	
Tin cans and other tinware	12.43	13.42	9.79	11.71	1.27	.82	.55	11.01	12.85	
Wire products	2.77	3.40	1.79	2.52	.19	.19	.60	2.69	2.87	
Cutlery and edge tools	8.70	6.47	6.22	5.50	.80	1.21	.47	8.82	7.54	
Tools, except edge tools, machine tools, files, and saws	5.45	5.98	4.19	4.87	.42	.14	.70	7.70	6.18	
Hardware	5.37	6.54	4.02	5.36	.56	.21	.58	5.35	6.24	
Plumbers' supplies	4.93	5.38	3.32	4.27	.28	.10	1.23	4.35	3.94	
Stoves, oil burners, and heating equipment	8.19	9.07	5.44	6.52	1.07	.97	.71	9.67	11.10	
Steam and hot-water heating apparatus and steam fittings	5.13	5.82	3.68	4.54	.55	.32	.58	4.34	5.99	
Stamped and enameled ware and galvanizing	8.98	10.27	6.61	8.41	.84	.93	.60	8.86	10.56	
Fabricated structural metal products	7.24	8.44	4.58	5.92	.92	.72	1.02	7.00	8.23	
Bolts, nuts, washers, and rivets	4.89	6.24	3.67	4.85	.60	.08	.54	5.83	6.42	
Forgings, iron and steel	5.91	5.90	3.93	4.22	.64	.56	.78	6.34	6.77	
Firearms, 60 caliber and under [2]	6.03	7.29	4.00	5.52	.86	.45	.72	.....	.....	

See footnotes at end of table.

TABLE 2.—*Monthly Turnover Rates in Selected Groups and Industries, October 1943*—Continued

Industry	Turnover rate per 100 employees								
	Total separation		Quit		Discharge	Layoff	Military and miscellaneous	Total accession	
	October[1]	September	October[1]	September	October[1]	October[1]	October[1]	October[1]	September
Manufacturing—Continued									
Machinery, except electrical	5.49	6.50	3.58	4.54	0.68	0.42	0.81	4.70	5.55
Engines and turbines [2]	5.02	5.56	3.25	3.89	.91	.26	.60	----	----
Agricultural machinery and tractors	5.20	5.35	3.86	3.95	.35	.13	.86	6.60	7.26
Machine tools	5.53	6.59	2.86	4.02	.57	.93	1.17	2.09	2.70
Machine-tool accessories [2]	5.19	6.38	3.21	4.16	.77	.54	.67	----	----
Metalworking machinery and equipment, not elsewhere classified [2]	5.32	5.57	3.52	3.93	.59	.50	.71	----	----
Textile machinery	4.47	4.09	3.20	3.46	.28	.46	.53	3.81	3.31
General industrial machinery, except pumps	5.84	7.46	4.18	5.57	.72	.23	.71	5.78	6.91
Pumps and pumping equipment	6.10	6.75	3.81	4.88	.71	.66	.92	5.24	5.13
Automobiles	6.07	6.96	4.21	5.04	.67	.40	.79	6.75	8.41
Motor vehicles, bodies, and trailers	5.37	6.77	3.83	5.33	.39	.38	.77	5.89	7.78
Motor-vehicle parts and accessories	6.52	7.12	4.45	4.84	.85	.42	.80	7.29	8.42
Nonferrous metals and their products	7.16	8.35	5.40	6.44	.75	.23	.78	8.41	10.61
Primary smelting and refining, except aluminum and magnesium [2]	4.68	5.75	3.32	4.32	.27	.33	.76	----	----
Aluminum and magnesium smelting and refining [2]	11.33	12.91	8.45	10.13	1.35	.23	1.30	----	----
Rolling and drawing of copper and copper alloys [2]	5.21	6.65	4.20	5.25	.34	.11	.56	----	----
Aluminum and magnesium products [2]	6.71	8.05	5.06	6.03	.69	.17	.79	----	----
Lighting equipment	7.77	9.84	6.08	8.11	.88	.29	.52	8.66	10.63
Nonferrous metal foundries, except aluminum and magnesium [2]	6.96	8.06	5.17	6.27	.81	.35	.63	----	----
Lumber and timber basic products	7.38	9.17	5.76	7.51	.35	.74	.53	6.72	7.78
Sawmills	7.00	8.66	5.63	7.08	.24	.54	.59	6.45	7.80
Planing and plywood mills	6.98	9.79	4.81	7.87	.57	1.17	.43	6.06	7.65
Furniture and finished lumber products	9.14	11.79	7.39	9.58	.76	.41	.58	9.56	10.77
Furniture, including mattresses and bedsprings	9.28	11.51	7.46	9.36	.78	.44	.60	9.31	10.45
Stone, clay, and glass products	5.91	7.77	4.42	6.05	.33	.45	.71	5.48	6.30
Glass and glass products	6.34	8.79	4.45	6.15	.38	.63	.88	6.62	8.21
Cement	4.57	5.20	3.05	3.99	.31	.77	.44	2.61	2.67
Brick, tile, and terra cotta	7.35	9.10	5.72	7.28	.31	.59	.73	6.05	5.88
Pottery and related products	5.49	7.98	4.59	6.89	.24	.19	.47	6.74	7.46
Electrical machinery	5.22	6.96	4.03	5.52	.52	.14	.83	6.50	7.32
Electrical equipment for industrial use [2]	4.47	5.53	3.25	4.18	.38	.24	.60	----	----
Radios, radio equipment, and phonographs [2]	6.19	8.19	4.88	6.59	.76	.05	.50	----	----
Communication equipment, except radios [2]	4.63	7.86	3.90	6.66	.41	.02	.40	----	----
Ordnance	7.04	7.69	4.41	5.18	.73	1.25	.65	8.00	8.76
Guns, howitzers, mortars, and related equipment [2]	6.53	6.92	4.04	4.67	.66	1.11	.72	----	----
Ammunition, except for small arms [2]	7.64	8.36	5.29	6.20	.87	.84	.64	----	----
Tanks [2]	8.45	9.14	4.24	4.70	.75	2.78	.68	----	----
Sighting and fire-control equipment [2]	3.78	4.56	2.44	3.34	.37	.41	.56	----	----
Transportation equipment, except automobiles	7.65	8.29	5.20	6.01	1.07	.51	.87	8.00	9.10
Aircraft [2]	6.43	7.01	4.85	5.55	.58	.27	.73	----	----
Aircraft parts [2]	5.53	5.69	3.61	4.10	.67	.59	.66	----	----
Shipbuilding and repairs [2]	9.56	10.50	6.23	7.30	1.64	.63	1.06	----	----
Textile-mill products	6.69	8.53	5.49	7.34	.39	.37	.44	6.47	6.91
Cotton	7.37	9.48	6.03	8.32	.45	.34	.45	7.23	7.69
Silk and rayon goods	7.62	8.20	6.20	7.18	.45	.41	.56	7.04	7.56
Woolen and worsted, except dyeing and finishing	4.86	6.60	3.74	5.08	.21	.49	.42	4.69	5.26
Hosiery, full-fashioned	5.08	6.98	4.44	6.24	.21	.10	.33	4.61	4.99
Hosiery, seamless	6.76	7.81	5.65	6.87	.33	.39	.39	6.86	6.99
Knitted underwear	7.57	8.67	6.61	7.92	.31	.47	.18	7.37	6.72
Dyeing and finishing textiles, including woolen and worsted	6.44	7.82	4.46	6.13	.54	.80	.64	5.33	6.13

See footnote at end of table.

TABLE 2.—*Monthly Turnover Rates in Selected Groups and Industries, October 1943*—Continued

Industry	Turnover rate per 100 employees								
	Total separation		Quit		Discharge	Layoff	Military and miscellaneous	Total accession	
	October[1]	September	October[1]	September	October[1]	October[1]	October[1]	October[1]	September
Manufacturing—Continued									
Apparel and other finished textile products	6.72	8.51	5.87	7.59	0.23	0.45	0.17	6.64	6.83
Men's and boys' suits, coats, and overcoats	5.02	6.21	3.94	5.21	.12	.77	.19	4.27	4.81
Men's and boys' furnishings, work clothing, and allied garments	6.92	9.04	6.31	8.20	.27	.18	.16	6.35	6.98
Women's clothing, except corsets	7.13	9.20	6.17	8.52	.15	.75	.06	9.46	7.47
Leather and leather products	5.64	7.52	4.56	6.41	.23	.27	.58	4.68	6.01
Leather	4.93	5.20	3.74	3.89	.16	.55	.48	3.09	3.86
Boots and shoes	5.82	7.89	4.76	6.81	.24	.21	.61	5.05	6.38
Food and kindred products	11.04	11.82	8.73	9.69	.72	.76	.83	11.95	11.48
Meat products	10.36	10.85	7.68	8.47	.77	.86	1.05	10.74	9.60
Grain-mill products	12.58	11.66	10.17	9.39	1.01	.63	.77	14.12	13.54
Paper and allied products	7.12	8.99	5.76	7.48	.45	.27	.64	7.23	8.19
Paper and pulp	6.03	7.27	4.65	6.14	.38	.29	.71	5.74	6.39
Paper boxes	9.83	12.49	8.40	9.83	.63	.23	.57	10.83	12.01
Chemicals and allied products	6.29	8.71	4.25	5.36	.57	.78	.69	5.59	5.97
Paints, varnishes, and colors	5.81	8.06	3.71	5.94	1.18	.31	.61	6.44	6.78
Rayon and allied products	3.70	4.73	2.72	3.92	.19	.32	.47	4.24	4.65
Industrial chemicals, except explosives	4.51	5.33	3.11	3.86	.43	.23	.74	4.47	5.32
Explosives[2]	5.00	5.91	3.47	4.57	.60	.40	.53	------	------
Small-arms ammunition[2]	8.16	12.47	5.26	6.44	.75	1.39	.76	------	------
Products of petroleum and coal	3.43	4.04	2.23	3.02	.23	.29	.68	3.57	3.55
Petroleum refining	3.13	3.79	2.06	2.84	.17	.23	.67	3.31	3.40
Rubber products	6.60	7.42	5.39	6.32	.40	.15	.66	7.48	8.36
Rubber tires and inner tubes	4.59	5.46	3.71	4.47	.12	.06	.70	6.55	7.35
Rubber footwear and related products	6.59	8.61	5.59	7.74	.28	------	.72	5.51	7.18
Miscellaneous rubber industries	7.45	8.27	6.09	7.09	.53	.20	.63	8.04	8.96
Tobacco manufactures	7.73	9.65	6.91	8.63	.36	.15	.31	8.18	8.88
Miscellaneous industries	4.53	6.04	3.47	4.43	.38	.16	.52	5.01	4.54
Nonmanufacturing									
Metal mining	7.20	7.09	4.66	5.36	.63	1.32	.59	4.81	7.46
Iron ore	4.81	4.08	2.81	2.49	.52	.79	.69	2.57	2.72
Copper ore	6.08	7.04	5.13	5.95	.46	.14	.35	5.53	10.08
Lead and zinc ore	5.86	6.57	4.22	5.21	.60	.50	.54	5.06	7.18
Metal mining, not elsewhere classified (including aluminum ore)	14.08	11.72	6.53	8.08	1.23	5.40	.92	5.87	8.92
Coal mining:									
Anthracite	2.32	2.90	1.41	2.04	.06	.51	.34	1.58	1.89
Bituminous	3.54	4.03	2.77	3.18	.14	.11	.52	2.89	3.34
Public utilities:									
Telephone	3.60	4.23	3.08	3.64	.13	.17	.22	3.28	3.53
Telegraph	(3)	5.16	(3)	4.69	(3)	(3)	(3)	(3)	6.14

[1] Data are preliminary.
[2] Publication of accession rates is restricted in these specific war industries.
[3] Comparable data on the telegraph industry are not available due to the merger of the Western Union and Postal Telegraph.

TABLE 3.—*Monthly Labor Turnover Rates for Men and Women in Selected Groups and Industries Engaged in War Production, October 1943* [1]

Industry	Turnover rate per 100 employees [2]					
	Total separation		Quit		Total accession	
	Men	Women	Men	Women	Men	Women
Iron and steel and their products	4.68	7.84	3.07	6.54	3.96	9.51
Blast furnaces, steel works, and rolling mills	3.50	6.12	2.25	5.46	2.59	7.76
Gray-iron castings	7.96	11.08	5.83	8.96	7.31	13.38
Malleable-iron castings	5.12	7.54	4.00	5.99	5.11	11.06
Steel castings	7.60	8.11	5.46	6.88	6.35	8.01
Cast-iron pipe and fittings	7.02	8.09	3.72	4.94	4.83	4.20
Firearms, 60 caliber and under	5.02	7.78	2.71	6.21	5.66	9.65
Machinery, except electrical	4.91	7.93	2.97	6.16	3.94	8.20
Engines and turbines	4.32	8.09	2.75	5.42	4.66	10.65
Machine tools	4.86	9.23	2.30	6.03	1.68	4.34
Machine-tool accessories	4.72	6.81	2.47	5.71	3.16	5.34
Metalworking machinery and equipment, not elsewhere classified	4.35	10.26	2.76	7.43	2.46	7.20
General industrial machinery, except pumps	5.28	7.65	3.51	6.37	4.71	9.27
Pumps and pumping equipment	5.79	7.87	3.36	6.36	4.76	7.66
Nonferrous metals and their products	6.79	8.61	4.93	7.25	7.63	11.59
Primary smelting and refining, except aluminum and magnesium	4.44	8.50	3.04	7.89	4.24	13.06
Aluminum and magnesium smelting and refining	11.35	11.17	8.29	9.88	12.00	10.18
Rolling and drawing of copper and copper alloys	4.48	7.54	3.43	6.65	4.63	9.11
Aluminum and magnesium products	6.38	8.17	4.57	7.16	9.04	16.09
Nonferrous metal foundries, except aluminum and magnesium	6.03	9.21	4.60	6.54	6.15	9.20
Electrical machinery	4.19	6.49	2.87	5.47	4.80	8.09
Electrical equipment for industrial use	3.49	6.19	2.15	5.19	3.41	6.88
Radios, radio equipment, and phonographs	4.67	7.28	2.98	6.25	6.19	10.65
Communication equipment, except radios	3.62	5.47	3.08	4.57	4.40	7.98
Ordnance	6.45	8.47	3.40	6.81	6.37	11.83
Guns, howitzers, mortars, and related equipment	5.77	8.83	3.05	7.06	4.11	8.94
Ammunition, except for small arms	6.56	9.08	3.73	7.36	7.59	13.59
Tanks	8.52	7.59	4.09	6.02	8.30	15.09
Sighting and fire-control equipment	3.02	5.53	1.65	4.24	2.94	5.25
Transportation equipment, except automobiles	7.22	9.05	4.53	7.31	7.06	10.94
Aircraft	5.46	7.92	3.53	6.91	6.34	9.34
Aircraft parts	4.49	8.36	2.68	6.12	5.08	10.86
Shipbuilding and repairs	9.48	12.48	5.89	9.48	8.48	14.62
Chemicals and allied products	5.45	8.06	3.24	6.40	4.32	8.28
Industrial chemicals, except explosives	4.14	6.39	2.70	5.26	3.96	7.14
Explosives	2.99	8.39	1.96	6.03	2.32	6.61
Small-arms ammunition	7.64	8.80	3.89	7.00	4.33	8.83

[1] Data are preliminary.

[2] These figures are presented to show comparative turnover rates and should not be used to estimate employment.

Building Operations

Building Construction in Urban Areas, November 1943

ONE-FIFTH less building construction was started in urban areas during November than during October 1943. Declines were shown for both Federal building contract awards and all types of private building—38 percent and 9 percent, respectively. From October to November 1943, new nonresidential construction decreased 33 percent; new residential, 18 percent; and additions, alterations, and repairs, 6 percent. New nonresidential was the only class of private building construction to show an increase for the period, 27 percent, while all classes of Federal building construction declined.

Total building construction valuations were 3 percent higher in November 1943 than in November 1942, due to an increase of 57 percent in additions, alterations, and repairs. The dollar volume of new residential buildings started during November 1943 declined 6 percent and new nonresidential building, 10 percent. Federal construction contracts awarded were about two-thirds of the November 1942 valuations. Permit valuations for other building construction increased 37 percent.

Comparison of November 1943 and October 1943 and November 1942

The volume of Federally financed and other building construction in urban areas of the United States in October and November 1943 and November 1942 is summarized in table 1.

TABLE 1.—*Summary of Building Construction in All Urban Areas, November 1943*

Class of construction	Number of buildings			Valuation		
	November 1943	Percent of change from—		November 1943 (in thousands)	Percent of change from—	
		October 1943	November 1942		October 1943	November 1942
All building construction	53,247	−10.8	+25.2	$96,411	−20.8	+2.5
New residential	15,607	+11.5	+33.7	45,291	−17.7	−6.0
New nonresidential	6,018	−22.8	+6.5	28,468	−33.2	−9.5
Additions, alterations, and repairs	31,622	−16.6	+25.5	22,652	−5.9	+57.0

The number of new dwelling units in urban areas for which permits were issued or contracts awarded during November 1943 and the estimated valuation of such new housekeeping residential construction are presented in table 2.

TABLE 2.—*Number and Valuation of New Dwelling Units in All Urban Areas, by Type of Dwelling, November 1943*

Type of financing and dwelling	Number of dwelling units			Valuation		
	November 1943	Percent of change from—		November 1943 (in thousands)	Percent of change from—	
		October 1943	November 1942		October 1943	November 1942
All dwellings	17,166	−1.5	+14.8	$45,180	−17.5	−0.5
Privately financed	9,412	−20.5	+2.9	29,701	−21.6	+2.0
1-family	7,015	(3)	+7.0	22,764	−4.9	−.5
2-family [1]	1,309	−27.4	+12.4	3,723	−30.0	+30.8
Multifamily [2]	1,088	−64.0	−23.6	3,214	−62.6	−1.3
Federally financed	7,754	+38.6	+33.5	15,479	−8.6	−5.1

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.
[3] Less than a tenth of 1 percent decrease.

Comparison of First 11 Months of 1942 and 1943

Permit valuations and contract values reported in the first 11 months of 1942 and 1943 are compared in table 3.

TABLE 3.—*Valuation of Building Construction in All Urban Areas, by Class of Construction, First 11 Months of 1943 and 1942*

Class of construction	Valuation (in thousands of dollars) of—					
	All construction: First 11 months			Federal construction: First 11 months		
	1943	1942	Percent of change	1943	1942	Percent of change
All construction	1,179,365	2,545,880	−53.7	535,181	1,498,297	−64.3
New residential	330,535	872,765	−39.2	183,366	294,747	−37.8
New nonresidential	432,464	1,405,793	−69.2	337,576	1,169,687	−71.1
Additions, alterations, and repairs	216,366	267,322	−19.1	14,239	33,863	−58.0

The number and valuation of new dwelling units for which permits were issued and contracts awarded during the first 11 months of 1943 are compared with similar data for 1942 in table 4.

TABLE 4.—*Number and Valuation of New Dwelling Units in All Urban Areas, by Source of Funds and Type of Dwelling, First 11 Months of 1943 and 1942*

Type of financing and dwelling	Number of dwelling units			Valuation (in thousands)		
	First 11 months of—		Percent of change	First 11 months of—		Percent of change
	1943	1942		1943	1942	
All dwellings	193,310	263,807	−26.7	$522,477	$852,621	−38.7
Privately financed	111,252	176,899	−37.1	346,286	583,336	−40.6
1-family	72,618	133,426	−45.6	238,979	459,793	−48.0
2-family [1]	15,241	14,663	+3.9	42,707	39,845	+7.2
Multifamily [2]	23,393	28,810	−18.8	64,600	83,698	−22.8
Federal	82,058	86,908	−5.6	176,191	269,285	−34.6

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Construction from Public Funds, November 1943

The value of contracts awarded and force-account work started during October and November 1943 and November 1942 on all construction projects and shipbuilding, financed wholly or partially from Federal funds and reported to the Bureau, is shown in table 5. This table includes all other types of construction as well as building construction, both inside and outside urban areas of the United States

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects and Shipbuilding, Financed From Federal Funds, November 1943*

Source of funds	Contracts awarded and force account work started (in thousands)		
	November 1943 [1]	October 1943 [2]	November 1942 [2]
Total	$177,948	$373,699	$493,363
War public works	4,382	4,919	1,421
Regular Federal appropriations	152,740	336,916	455,956
Federal Public Housing Authority	20,826	31,834	35,986

[1] Preliminary; subject to revision.
[2] Revised.

Coverage

Figures on building construction shown in this report cover the entire urban area of the United States, which, by Census definition, includes all incorporated places with a 1940 population of 2,500 or more and, by special rule, a small number of unincorporated civil divisions. The volume of privately financed construction is estimated from the building-permit data received from a large majority of all urban places, and these estimates are combined with data on building construction contracts awarded as furnished by Federal and State agencies. The contracts awarded for Federally financed building construction in urban areas were valued at $30,258,000 in November 1943, $49,146,000 in October 1943, and $45,706,000 in November 1942.

The valuation figures represent estimates of construction costs made by prospective private builders when applying for permits to build, and the value of contracts awarded by the Federal and State governments. No land costs are included. Unless otherwise indicated, only building construction within the corporate limits of cities in the urban areas is included in the tabulations.

Trend of Employment, Earnings, and Hours

Summary of Reports for November 1943

THE total number of employees in nonagricultural establishments was 38,251,000 in November, 25,000 less than in October and 282,000 less than in November 1942. Although the November figure was below that reported for October there was a continued increase in manufacturing employment and a larger than seasonal increase in trade.

The increase of 125,000 employees in the trade division reflects the large spurt in retail buying during the pre-Christmas season. Many of the new employees were part-time workers.

Industrial and Business Employment

The increase of 63,000 in the durable-goods group of manufacturing industries and the decline of 37,000 in the nondurable group resulted in a net increase of 26,000 in all manufacturing industries.

Employment rose in 7 of the 9 durable-goods groups. Increases of between 10,000 and 15,000 were reported by the iron and steel, electrical machinery, machinery (except electrical), transportation equipment, and automobile groups. The largest employment increase was reported by plants in the automobile industry. This industry converted to the production of war goods in 1941 and 1942 and is now on a complete wartime footing.

Among the nondurable groups, three employed fewer wage earners than in the preceding month. A seasonal decrease in the canning industry was responsible for the decline of 36,000 in the food group. Curtailment of the production of small-arms ammunition resulted in an employment decline of 16,000 in the chemicals group.

Employment in bituminous-coal mining was 369,000, 52,000 less than in November 1942 and 4,000 less than in October 1943. A decline in employment was also reported by the metal-mining group and was brought about by decreases in copper and iron mining employment.

Each of the service industries (hotels, power laundries, and dyeing and cleaning establishments) employed fewer workers than in October.

TABLE 1.—*Estimated Number of Wage Earners and Indexes of Wage-Earner Employment in Manufacturing Industries, by Major Industry Group* [1]

[Subject to revision]

Industry group	Estimated number of wage earners (thousands)				Wage-earner indexes (1939=100)	
	November 1943 [2]	October 1943	September 1943	November 1942	November 1943 [2]	October 1943
All manufacturing	13,986	13,960	13,938	13,267	170.7	170.4
Durable goods	8,448	8,385	8,324	7,597	234.0	232.2
Nondurable goods	5,538	5,575	5,614	5,670	120.9	121.7
Iron and steel and their products	1,744	1,733	1,721	1,643	175.9	174.7
Electrical machinery	745	734	725	630	287.4	283.4
Machinery, except electrical	1,265	1,255	1,248	1,168	239.5	237.6
Transportation equipment, except automobiles	2,325	2,314	2,300	1,909	1,465.1	1,457.6
Automobiles	769	755	738	592	191.2	187.6
Nonferrous metals and their products	426	422	417	398	186.0	184.3
Lumber and timber basic products	462	463	467	526	109.9	110.2
Furniture and finished lumber products	362	359	356	363	110.4	109.4
Stone, clay, and glass products	350	350	352	368	[illegible].2	119.3
Textile-mill products and other fiber manufactures	1,189	1,187	1,185	1,277	103.9	103.8
Apparel and other finished textile products	820	825	822	887	103.9	104.6
Leather and leather products	316	314	315	363	91.0	90.5
Food	1,009	1,045	1,102	1,038	118.1	122.3
Tobacco manufactures	90	89	88	100	96.6	95.5
Paper and allied products	317	314	311	304	119.3	118.2
Printing, publishing, and allied industries	341	335	330	338	103.9	102.3
Chemicals and allied products	723	739	736	693	250.9	256.4
Products of petroleum and coal	126	126	126	125	119.0	119.3
Rubber products	198	195	195	174	163.6	161.3
Miscellaneous industries	409	406	404	371	167.3	166.0

[1] The estimates and indexes presented in this table have been adjusted to final data for 1941 and preliminary data for the second quarter of 1942 made available by the Bureau of Employment Security of the Federal Security Agency and are not comparable with data shown in mimeographed releases for December 1942 and prior months. Estimates and indexes for the period January 1939 to November 1942 comparable with the data in the above table are available upon request.

[2] Preliminary data for November 1943.

Public Employment

Halting the decline started in June, employment in the executive branch of the Federal Government increased 25,000 during the month of November to a total of 2,984,000. Increases took place mainly in the Navy (6,400) and Post Office (25,000) Departments, most of the other agencies curtailing their employment somewhat. Of the additional employees, approximately 1,500 were assigned to work in the Washington metropolitan area. During the year ending November 1943, roughly the second year of the United States' participation in the war, 213,000 Federal employees were added, as compared with 1,180,000 in the first year of active participation.

Employment on shipbuilding and repair projects financed wholly or partially from Federal funds continued to increase during November, whereas all other types of projects—nonresidential building construction, airport construction, war production facilities, war public works, and public housing—showed declines during the month.

Although the work-relief program in Puerto Rico and the Virgin Islands employed an average of 21,300 project workers during the month, the number of such workers dropped from 32,000 at the beginning to approximately 13,000 at the close of the month. All projects are now in process of liquidation.

For the regular Federal services, data for the legislative and judicial services and for force-account employees in the executive service are

reported to the Bureau of Labor Statistics; data for other executive-service employees are reported through the Civil Service Commission. The Bureau of Labor Statistics receives monthly reports on employment and pay rolls for the various construction projects financed wholly or partially by Federal funds directly from the contractors and subcontractors, and for the work-relief program, from the Washington office.

A summary of employment and pay-roll data for the regular Federal services, for construction projects financed wholly or partially from Federal funds, and for the Puerto Rico and Virgin Islands work-relief program is given in table 2.

TABLE 2.—*Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially From Federal Funds*

[Subject to revision]

Service or program	Employment			Pay rolls		
	November 1943	October 1943	November 1942	November 1943	October 1943	November 1942
Regular Federal services:						
Executive [1]	2,984,099	2,959,227	2,771,335	$561,162,000	$555,676,737	$457,078,305
War agencies [2]	2,165,194	2,164,130	1,948,642	395,532,000	395,092,779	317,344,678
Other agencies	818,905	795,097	822,693	165,630,000	160,583,958	139,733,918
Judicial	2,655	2,647	2,617	800,148	767,438	675,370
Legislative	6,116	6,110	6,353	1,489,631	1,494,947	1,386,425
Construction projects:						
Financed from regular Federal appropriations [3]	1,907,400	1,941,500	2,466,200	502,491,000	480,895,000	514,336,000
War	1,859,300	1,892,200	2,376,200	492,666,000	470,822,000	497,985,000
Other	48,100	49,300	90,000	9,825,000	10,073,000	16,351,000
Public housing	52,700	58,200	76,800	10,598,000	11,687,000	12,353,000
War public works	15,100	15,200	11,100	2,380,000	2,383,000	1,556,000
Financed by RFC	106,400	123,600	201,200	24,032,000	27,915,000	37,675,000
War	106,400	123,600	199,400	24,032,000	27,915,000	37,363,000
Other	0	0	1,800	0	0	312,000
Puerto Rico and Virgin Islands work relief	21,300	36,891	[4] 363,005	930,912	1,187,670	[4] 23,144,330

[1] Includes employees in United States navy yards and on force-account construction who are also included under construction projects. Data for November 1942 are not strictly comparable with the series starting June 1943 because of the inclusion of employees on terminal leave in the earlier figure and the inclusion beginning June 1943 of approximately 7,000 employees of the War Shipping Administration who were previously unreported.

[2] Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, Panama Canal, Office for Emergency Management, Office of Censorship, Office of Price Administration, Office of Strategic Services, Foreign Economic Administration, and the Petroleum Administration for War.

[3] Includes ship construction and repair in United States navy yards and the Federally financed part thereof in private shipyards.

[4] Data cover entire Work Projects Administration program, which was abolished at the end of June 1943 except for the work in Puerto Rico and the Virgin Islands.

Detailed Reports for Industrial and Business Employment, October 1943

Estimates of Nonagricultural Employment

ESTIMATES of civil employees in nonagricultural establishments by major groups are given in table 1. With the exception of the trade and finance-service-miscellaneous group, they are not comparable with estimates published in the September 1942 or earlier issues of the Monthly Labor Review. Comparable figures for the months from

January 1939 to July 1942 are given in the October issue of the Monthly Labor Review.

The estimates are based on reports of employers to the U. S. Bureau of Labor Statistics, on data made available by the Bureau of Employment Security and the Bureau of Old-Age and Survivors Insurance of the Federal Security Agency, and on information supplied by other Government agencies, such as the Interstate Commerce Commission, Civil Service Commission, and the Bureau of the Census. They do not include military personnel, emergency employment (such as WPA, NYA, and CCC), proprietors, self-employed persons, unpaid family workers, or domestics.

Estimates of employees in nonagricultural establishments by States are given each month in the Bureau of Labor Statistics mimeographed release on employment and pay rolls.

TABLE 1.—*Estimated Number of Employees in Nonagricultural Establishments, by Industry Division*

Industry division	Estimated number of employees (in thousands)			
	October 1943	September 1943	August 1943	October 1942
Total estimated employment [1]	[2] 38,276	38,227	38,245	38,478
Manufacturing	16,205	16,179	16,245	15,313
Mining	819	825	823	902
Contract construction and Federal force-account construction	974	1,066	1,162	2,028
Transportation and public utilities	3,705	3,708	3,695	3,539
Trade	6,419	6,285	6,218	6,697
Finance, service, and miscellaneous	4,300	4,334	4,331	4,327
Federal, State, and local government, excluding Federal force-account construction	[2] 5,854	5,830	5,771	5,672

[1] Estimates exclude proprietors of unincorporated businesses, self-employed persons, domestics employed in private homes, public emergency employees, and personnel in the armed forces.
[2] Preliminary.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 152 manufacturing industries and for 16 nonmanufacturing industries, including private building construction, water transportation, and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission.

The employment, pay-roll, hours, and earnings figures for manufacturing, mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, while for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and

cleaning, and insurance, to approximately 80 percent for public utilities and 90 percent for mining.

The general manufacturing indexes are computed from reports supplied by representative establishments in the 152 manufacturing industries surveyed. These reports cover more than 65 percent of the total wage earners in all manufacturing industries of the country and about 80 percent of the wage earners in the 152 industries covered. Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

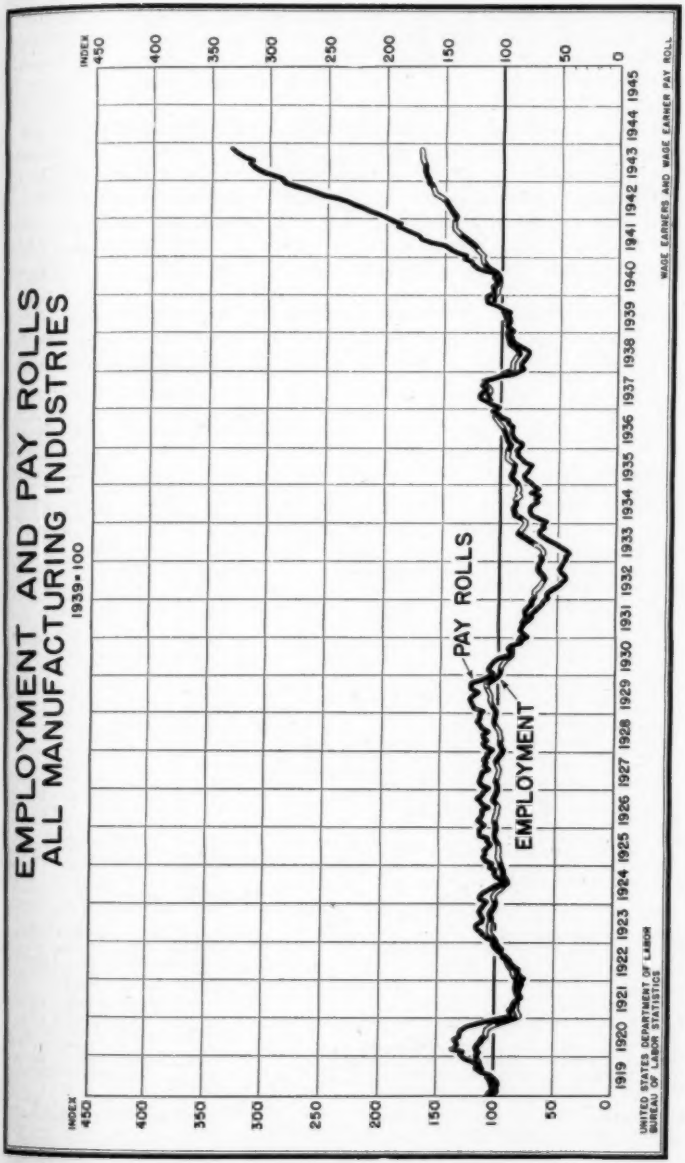
The average weekly earnings for individual industries shown in table 6 are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, the average hours worked per week and average hourly earnings shown in that table are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The average weekly hours and hourly earnings for the manufacturing groups are weighted arithmetic means of the averages for the individual industries, estimated employment being used as weights for weekly hours and estimated aggregate hours as weights for hourly earnings. The average weekly earnings for these groups are now computed by multiplying the average weekly hours by the corresponding average hourly earnings, and are not comparable with figures published in the November 1942 or earlier issues of the Monthly Labor Review. Formerly, weekly earnings for the groups were computed by dividing total weekly pay roll by total employment, without any formal weighting of figures for the component industries.

INDEXES OF EMPLOYMENT AND PAY ROLLS

Employment and pay-roll indexes, for both manufacturing and nonmanufacturing industries for August, September, and October 1943, and for October 1942, are presented in tables 3 and 5.

The revised manufacturing indexes and aggregates in tables 2 and 3 are not comparable with the indexes published in the November 1942 or earlier issues of the Monthly Labor Review, as a result of changes in definitions, a change in the index base period, and adjustments in levels. Revised figures for the major manufacturing groups are available in mimeographed form by months from January 1939 through October 1942, and for individual manufacturing industries from January 1939 through August 1942.

The figures relating to all manufacturing industries combined, to the durable- and nondurable-goods divisions, and to the major industry groups, have been adjusted to conform to levels indicated by final 1941 and preliminary data for the second quarter of 1942 released by the Bureau of Employment Security of the Federal Security Agency. The Bureau of Employment Security data referred to are


EMPLOYMENT AND PAY ROLLS
ALL MANUFACTURING INDUSTRIES
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UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WAGE EARNERS AND WAGE EARNER PAY ROLL

(a) employment totals reported by employers under State unemployment-compensation programs, and (b) estimates of the number of employees not reported under the programs of some of these States, which do not cover small establishments. The latter estimates were obtained from tabulations prepared by the Bureau of Old-Age and Survivors Insurance, which obtains reports from all employers regardless of size of establishment.

Not all industries in each major industry group are represented in the tables, since minor industries are not canvassed by the Bureau, and others cannot be shown because of their close relationship to the war program. Furthermore, no attempt has been made to allocate among the separate industries the adjustment to unemployment-compensation data. Hence, estimates for individual industries within a group will not in general add to the total estimate for that group.

TABLE 2.—*Estimated Number of Wage Earners in Manufacturing Industries* [1]

Industry [2]	Estimated number of wage earners (in thousands)			
	October 1943	September 1943	August 1943	October 1942
All manufacturing	13,960	13,938	13,990	13,166
Durable goods	8,385	8,324	8,321	7,464
Nondurable goods	5,575	5,614	5,669	5,702
Durable goods				
Iron and steel and their products	1,733	1,721	1,718	1,635
Blast furnaces, steel works, and rolling mills	509.9	511.7	514.9	458.1
Gray-iron and semisteel castings	77.8	78.4	79.9	80.0
Malleable-iron castings	25.7	25.7	26.0	26.7
Steel castings	81.0	81.6	83.7	79.3
Cast-iron pipe and fittings	15.3	15.2	15.3	20.1
Tin cans and other tinware	33.7	34.9	37.0	31.4
Wire drawn from purchased rods	35.5	35.4	35.6	33.8
Wirework	33.4	32.9	32.6	31.5
Cutlery and edge tools	22.1	21.5	21.6	20.3
Tools (except edge tools, machine tools, files, and saws)	27.5	27.0	27.4	26.5
Hardware	46.6	45.5	45.8	42.2
Plumbers' supplies	23.2	23.1	23.2	20.3
Stoves, oil burners, and heating equipment, not elsewhere classified	59.1	57.2	56.0	49.3
Steam and hot-water heating apparatus and steam fittings	59.6	59.1	59.5	54.1
Stamped and enameled ware and galvanizing	93.4	91.5	92.0	73.9
Fabricated structural and ornamental metalwork	72.4	71.7	71.9	67.3
Metal doors, sash, frames, molding, and trim	13.7	13.2	13.3	10.7
Bolts, nuts, washers, and rivets	29.7	29.6	29.7	26.9
Forgings, iron and steel	40.1	40.0	39.8	37.4
Wrought pipe, welded and heavy riveted	26.5	26.7	26.7	20.0
Screw-machine products and wood screws	49.0	48.8	49.4	46.5
Steel barrels, kegs, and drums	8.6	8.5	8.4	6.9
Electrical machinery	734	725	717	669
Machinery, except electrical	1,255	1,248	1,251	1,168
Machinery and machine-shop products	498.6	495.5	496.9	468.1
Tractors	56.3	55.3	54.1	46.6
Agricultural machinery, excluding tractors	41.1	40.4	39.4	32.0
Machine tools	97.4	100.9	106.0	120.0
Textile machinery	28.8	28.2	28.1	29.0
Pumps and pumping equipment	79.0	78.3	77.9	66.1
Typewriters	12.2	11.6	11.6	11.9
Cash registers, adding and calculating machines	36.3	35.8	34.8	30.9
Washing machines, wringers, and driers, domestic	14.7	14.5	14.2	13.2
Sewing machines, domestic and industrial	10.7	10.7	10.4	10.6
Refrigerators and refrigeration equipment	58.4	56.4	55.9	48.0
Transportation equipment, except automobiles	2,314	2,300	2,304	1,836
Motorcycles, bicycles, and parts	10.3	9.9	9.9	8.0
Automobiles	755	738	714	573

See footnotes at end of table.

TABLE 2.—*Estimated Number of Wage Earners in Manufacturing Industries*[1]—Continued

Industry[2]	Estimated number of wage earners (in thousands)			
	October 1943	September 1943	August 1943	October 1942
***Durable goods*—Continued**				
Nonferrous metals and their products	422	417	415	392
Smelting and refining, primary, of nonferrous metals	46.9	46.8	46.5	39.5
Clocks and watches	25.1	25.1	25.4	25.8
Jewelry (precious metals) and jewelers' findings	15.2	15.3	15.7	16.3
Silverware and plated ware	11.9	11.6	11.8	11.3
Lighting equipment	26.6	25.5	24.6	21.3
Sheet-metal work, not elsewhere classified	29.2	28.2	29.1	27.9
Lumber and timber basic products	463	467	482	535
Sawmills and logging camps	253.4	256.1	264.2	295.3
Planing and plywood mills	78.9	78.7	81.3	88.2
Furniture and finished lumber products	359	356	362	368
Mattresses and bedsprings	19.4	19.3	18.8	15.7
Furniture	168.0	167.0	169.6	172.5
Wooden boxes, other than cigar	29.3	29.1	29.9	32.1
Caskets and other morticians' goods	11.7	11.6	11.7	11.9
Wood preserving	10.0	10.0	10.5	12.0
Wood, turned and shaped	21.9	21.5	22.2	23.0
Stone, clay, and glass products	350	352	358	368
Glass and glassware	89.8	89.4	89.4	81.7
Glass products made from purchased glass	10.8	10.8	11.1	11.7
Cement	22.4	22.8	23.8	29.5
Brick, tile, and terra cotta	46.9	48.0	50.1	61.7
Pottery and related products	42.3	42.4	42.6	45.5
Gypsum	4.5	4.5	4.5	4.6
Wallboard, plaster (except gypsum), and mineral wool	10.8	11.1	11.0	10.9
Lime	9.0	9.2	9.2	10.1
Marble, granite, slate, and other products	12.3	12.3	12.5	13.7
Abrasives	24.1	23.9	24.6	18.4
Asbestos products	22.0	21.6	22.0	21.7
Nondurable goods				
Textile-mill products and other fiber manufactures	1,187	1,185	1,204	1,275
Cotton manufactures, except smallwares	472.1	471.0	478.2	505.6
Cotton smallwares	15.7	15.7	16.2	17.9
Silk and rayon goods	93.8	93.9	94.7	99.7
Woolen and worsted manufactures, except dyeing and finishing	160.7	160.3	161.6	177.2
Hosiery	113.5	113.2	115.2	123.9
Knitted cloth	11.6	11.5	11.6	11.7
Knitted outerwear and knitted gloves	31.6	31.9	32.9	30.2
Knitted underwear	39.6	39.4	40.9	44.7
Dyeing and finishing textiles, including woolen and worsted	64.7	65.2	66.1	70.0
Carpets and rugs, wool	21.3	21.1	21.9	23.2
Hats, fur-felt	10.0	9.9	9.9	8.9
Jute goods, except felts	3.6	3.6	3.7	3.9
Cordage and twine	16.7	16.4	16.8	15.9
Apparel and other finished textile products	825	822	834	904
Men's clothing, not elsewhere classified	222.2	221.2	224.5	242.6
Shirts, collars, and nightwear	56.4	56.5	57.9	66.1
Underwear and neckwear, men's	12.6	12.7	13.0	13.9
Work shirts	17.8	17.8	18.1	18.8
Women's clothing, not elsewhere classified	232.2	231.2	234.0	251.3
Corsets and allied garments [3]	16.5	16.1	16.1	17.5
Millinery	18.8	19.3	19.8	20.8
Handkerchiefs	3.5	3.6	3.6	4.2
Curtains, draperies, and bedspreads	16.3	15.9	16.0	16.9
Housefurnishings, other than curtains, etc.	13.6	13.4	13.9	17.0
Textile bags	14.4	13.9	14.4	15.4
Leather and leather products	314	315	325	357
Leather	41.6	41.9	43.4	48.4
Boot and shoe cut stock and findings	16.3	16.4	16.8	18.2
Boots and shoes	177.0	178.4	183.2	199.1
Leather gloves and mittens	13.9	13.7	13.8	14.4
Trunks and suitcases	12.2	12.1	13.0	16.9
Food	1,045	1,102	1,097	1,099
Slaughtering and meat packing	159.3	159.3	162.7	174.2
Butter	21.6	22.4	23.7	21.5
Condensed and evaporated milk	12.8	13.4	14.2	13.1
Ice cream	14.7	15.6	17.3	16.0
Flour	29.8	28.9	28.6	25.6
Feeds, prepared	21.4	21.4	21.6	20.6

[1] See footnotes at end of table.

TABLE 2.—*Estimated Number of Wage Earners in Manufacturing Industries*[1]—Continued

Industry[2]	Estimated number of wage earners (in thousands)			
	October 1943	September 1943	August 1943	October 1942
Nondurable goods—Continued				
Food—Continued.				
Cereal preparations	10.1	10.1	10.0	9.8
Baking	257.6	250.5	251.4	264.7
Sugar refining, cane	14.4	14.7	14.5	11.1
Sugar, beet	17.4	7.7	5.3	24.0
Confectionery	57.5	53.5	52.9	64.4
Beverages, nonalcoholic	28.2	29.7	30.6	26.8
Malt liquors	48.0	48.0	48.8	43.2
Canning and preserving	171.8	248.2	235.2	191.4
Tobacco manufactures	89	88	88	99
Cigarettes	35.1	34.5	34.4	34.5
Cigars	39.9	40.1	40.3	49.9
Tobacco (chewing and smoking) and snuff	8.4	8.3	8.2	8.6
Paper and allied products	314	311	315	309
Paper and pulp	148.5	148.5	150.4	150.3
Paper goods, other	47.7	47.2	47.9	45.1
Envelopes	10.2	10.2	10.4	9.3
Paper bags	12.5	12.3	12.7	11.7
Paper boxes	85.3	83.0	84.4	70.3
Printing, publishing, and allied products	335	330	337	333
Newspapers and periodicals	112.6	112.4	112.0	116.5
Printing, book and job	132.7	128.8	134.0	126.6
Lithographing	24.6	25.0	25.4	24.4
Bookbinding	29.7	29.0	30.2	30.6
Chemicals and allied products	739	736	741	673
Paints, varnishes, and colors	29.7	29.5	30.0	30.9
Drugs, medicines, and insecticides	47.2	46.4	46.5	38.9
Perfumes and cosmetics	11.2	10.6	11.0	10.5
Soap	13.3	13.2	13.0	14.0
Rayon and allied products	53.0	52.4	52.7	52.6
Chemicals, not elsewhere classified	120.4	119.0	117.8	106.5
Compressed and liquefied gases	6.3	6.3	6.4	6.4
Cottonseed oil	22.1	20.4	13.2	23.4
Fertilizers	20.1	19.8	18.8	19.3
Products of petroleum and coal	126	126	127	125
Petroleum refining	82.4	82.3	82.6	78.9
Coke and byproducts	23.9	24.0	24.4	25.6
Paving materials	1.9	1.7	1.6	2.0
Roofing materials	9.7	9.7	9.8	10.2
Rubber products	195	195	194	169
Rubber tires and inner tubes	90.1	91.3	89.4	74.0
Rubber boots and shoes	21.2	21.4	22.2	20.2
Rubber goods, other	74.3	72.7	72.7	66.7
Miscellaneous industries	406	404	407	389
Photographic apparatus	30.4	30.7	30.7	25.9
Pianos, organs, and parts	10.7	10.4	10.4	7.9
Games, toys, and dolls	16.4	15.7	16.1	14.1
Buttons	10.1	10.1	10.5	12.3

[1] Estimates for the major industry groups have been adjusted to final data for 1941 and preliminary data for the second quarter of 1942 made available by the Bureau of Employment Security of the Federal Security Agency, and are not comparable with data in issues of the Monthly Labor Review prior to March 1943. Comparable series for earlier months are available upon request. Estimates for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data. For this reason, together with the fact that this Bureau has not prepared estimates for certain industries, and does not publish wage earners in war industries, the sum of the individual industry estimates will not agree with totals shown for the major industry groups.

[2] Unpublished information concerning the following war industries may be obtained by authorized agencies upon request: Aircraft engines; aircraft and parts, excluding engines; alloying; aluminum manufactures; ammunition; cars, electric- and steam-railroad; communication equipment; electrical equipment; engines and turbines; explosives and safety fuses; fire extinguishers; firearms; fireworks; locomotives; machine-tool accessories; optical instruments and ophthalmic goods; professional and scientific instruments and fire-control equipment; radios and phonographs; and shipbuilding.

[3] Revisions have been made as follows in the data published for earlier months:
Corsets and allied garments.—May 1943 wage earners to 16.7.

TABLE 3.—*Indexes of Wage-Earner Employment and of Wage-Earner Pay Roll in Manufacturing Industries* [1]

[1939 average = 100]

Industry [2]	Wage-earner employment				Wage-earner pay roll			
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942
All manufacturing	170.4	170.1	170.8	160.7	333.4	328.3	322.2	270.9
Durable goods	232.2	230.5	230.4	206.7	470.3	461.2	448.2	366.2
Nondurable goods	121.7	122.5	123.8	124.5	199.6	198.3	199.0	177.7
Durable goods								
Iron and steel and their products	174.7	173.6	173.3	164.9	319.8	312.8	308.1	264.1
Blast furnaces, steel works, and rolling mills	131.3	131.7	132.6	135.5	234.1	232.7	229.9	200.7
Gray-iron and semisteel castings	133.2	134.2	136.7	150.7	256.6	250.5	253.0	254.7
Malleable-iron castings [3]	142.2	142.5	144.0	148.1	286.5	275.4	267.0	243.2
Steel castings	269.1	271.2	278.2	265.1	482.8	475.8	484.1	434.7
Cast-iron pipe and fittings	92.6	91.7	92.3	121.7	167.6	165.0	162.5	204.0
Tin cans and other tinware	106.0	109.7	116.5	98.8	175.4	178.2	186.9	139.4
Wire drawn from purchased rods	161.6	161.3	161.8	154.0	260.0	262.8	249.0	221.3
Wirework	109.9	108.2	107.2	103.5	215.7	203.3	200.9	172.5
Cutlery and edge tools	143.4	139.4	140.2	131.3	292.9	281.8	277.4	242.3
Tools (except edge tools, machine tools, files, and saws)	179.4	176.4	178.7	173.4	342.5	324.6	328.8	303.4
Hardware	130.6	127.7	128.4	118.5	265.5	254.0	250.9	209.9
Plumbers' supplies	94.3	93.7	94.0	82.2	165.9	156.0	160.3	126.1
Stoves, oil burners, and heating equipment, not elsewhere classified	128.0	124.0	121.4	106.9	231.7	219.2	211.1	167.2
Steam and hot-water heating apparatus and steam fittings	196.6	194.9	196.5	178.6	363.1	361.6	350.7	307.5
Stamped and enameled ware and galvanizing	168.2	164.6	165.7	134.9	330.9	314.5	306.0	227.2
Fabricated structural and ornamental metal-work	203.7	201.8	202.4	189.6	384.3	372.1	372.6	317.5
Metal doors, sash, frames, molding, and trim	177.6	170.7	171.7	138.2	327.0	325.2	302.4	215.9
Bolts, nuts, washers, and rivets	207.7	206.8	207.9	181.4	396.7	386.2	385.9	305.4
Forgings, iron and steel	260.8	260.0	259.1	243.6	514.2	488.8	483.2	431.2
Wrought pipe, welded and heavy riveted	316.6	319.6	319.5	239.5	564.3	567.7	586.1	431.1
Screw-machine products and wood screws	289.4	288.5	292.0	286.6	560.7	549.0	550.9	491.9
Steel barrels, kegs, and drums	142.2	140.2	139.0	114.1	273.2	263.8	270.3	180.7
Electrical machinery	283.4	279.8	276.7	235.3	494.7	487.7	475.3	382.7
Machinery, except electrical	237.6	236.2	236.8	217.3	441.4	435.2	423.9	371.5
Machinery and machine-shop products	246.4	244.9	245.6	222.0	447.4	440.5	429.9	371.5
Tractors	180.2	176.7	172.9	148.9	279.2	269.5	263.0	212.6
Agricultural machinery, excluding tractors	147.9	145.4	141.7	115.2	288.4	283.8	267.4	186.9
Machine tools	266.0	275.5	289.5	327.6	455.8	455.3	470.2	532.8
Textile machinery	131.3	128.7	128.4	132.3	237.8	227.4	226.7	224.3
Pumps and pumping equipment	325.9	322.9	321.3	281.2	694.2	678.2	657.1	531.3
Typewriters	75.5	71.7	71.4	73.3	151.1	143.4	137.3	130.9
Cash registers, adding and calculating machines	184.7	181.8	177.0	151.8	377.9	366.1	338.9	260.1
Washing machines, wringers and driers, domestic	197.5	193.9	190.0	137.8	340.5	335.9	320.7	213.3
Sewing machines, domestic and industrial	137.1	136.7	133.3	135.5	294.0	300.2	278.1	259.8
Refrigerators and refrigeration equipment	166.1	160.6	159.1	115.4	296.2	288.3	273.5	176.1
Transportation equipment, except automobiles	1457.6	1449.3	1451.7	1156.5	2944.8	2944.4	2805.5	2116.3
Motorcycles, bicycles, and parts	147.7	142.5	142.1	129.1	269.0	252.1	254.4	218.6
Automobiles	187.6	183.4	177.5	142.3	368.5	338.7	324.2	235.1
Nonferrous metals and their products	184.3	181.8	180.9	171.2	338.2	336.8	325.4	282.7
Smelting and refining, primary, of nonferrous metals	169.7	169.2	168.3	143.1	300.9	304.7	298.8	215.0
Clocks and watches	123.9	123.9	125.0	127.4	242.1	242.3	236.4	228.3
Jewelry (precious metals) and jewelers' findings	105.4	105.6	108.8	113.2	159.1	158.7	156.9	160.4
Silverware and plated ware	97.8	95.8	97.7	92.9	169.8	161.1	169.0	142.8
Lighting equipment	130.0	124.7	119.9	103.8	226.5	223.0	209.7	164.6
Sheet-metal work, not elsewhere classified	155.6	150.2	155.4	148.8	282.0	273.6	268.0	240.5
Lumber and timber basic products	110.2	111.0	114.6	127.2	200.9	197.7	206.0	198.3
Sawmills and logging camps	88.0	88.9	91.7	102.5	163.8	162.1	169.0	163.0
Planing and plywood mills	108.6	108.3	111 9	121.4	181.8	175.7	182.9	174.8
Furniture and finished lumber products	109.4	108.6	110.4	112.3	191.0	183.2	185.5	168.2
Mattresses and bedsprings	105.6	105.1	102.5	85.4	175.4	168.9	163.0	116.6
Furniture	105.5	104.9	106.5	108.3	184.4	176.7	179.2	164.5
Wooden boxes, other than cigar	115.6	114.7	117.9	126.5	212.4	205.3	210.8	197.4
Caskets and other morticians' goods	94.2	93.2	94.3	95.2	150.3	143.2	145.5	130.4
Wood preserving	89.1	88.5	93.1	107.1	184.1	182.4	180.6	171.5
Wood, turned and shaped	99.4	98.0	100.8	104.6	169.4	161.1	167.0	155.5

See footnotes at end of table.

TABLE 3.—*Indexes of Wage-Earner Employment and of Wage-Earner Pay Roll in Manufacturing Industries* [1]—Continued

[1939 average=100]

Industry [2]	Wage-earner employment				Wage-earner pay roll			
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942
Durable goods—Continued								
Stone, clay, and glass products	119.3	119.8	121.8	125.2	194.0	188.5	192.3	178.9
Glass and glassware	128.6	128.1	128.1	117.0	202.1	193.3	193.9	163.8
Glass products made from purchased glass	107.9	107.5	111.3	116.6	169.4	160.5	166.9	157.2
Cement	94.1	95.7	100.0	124.0	141.0	139.9	148.2	167.2
Brick, tile, and terra cotta	82.5	84.5	88.2	108.7	129.9	128.3	136.7	154.7
Pottery and related products	127.8	128.0	128.6	137.3	193.6	186.6	190.2	183.8
Gypsum	91.2	90.2	92.2	93.3	159.9	147.8	160.6	144.8
Wallboard, plaster (except gypsum), and mineral wool	132.5	136.7	136.0	134.3	230.0	232.2	226.9	201.7
Lime	95.0	96.8	97.7	107.1	172.2	172.0	181.1	164.0
Marble, granite, slate, and other products	66.5	66.6	67.7	73.7	94.9	89.5	92.7	90.8
Abrasives	311.3	308.8	317.4	238.0	501.0	494.4	498.4	365.3
Asbestos products	138.3	135.9	138.4	136.5	262.7	260.2	257.0	227.9
Nondurable goods								
Textile-mill products and other fiber manufactures	103.8	103.6	105.2	111.5	174.4	172.0	173.2	172.0
Cotton manufactures, except smallwares	119.2	118.9	120.8	127.7	205.1	204.8	203.6	210.4
Cotton smallwares	117.7	118.0	121.4	134.7	203.3	195.6	207.8	227.5
Silk and rayon goods	78.3	78.3	79.1	83.2	136.1	131.5	133.6	130.9
Woolen and worsted manufactures, except dyeing and finishing	107.7	107.4	108.3	118.7	197.6	194.9	198.3	198.2
Hosiery	71.3	71.2	72.4	77.9	109.2	105.0	106.5	103.2
Knitted cloth	106.0	105.0	106.7	107.3	174.2	169.0	174.2	152.9
Knitted outerwear and knitted gloves	112.3	113.5	116.9	107.5	192.1	190.5	192.4	158.6
Knitted underwear	102.8	102.3	106.2	116.1	177.2	171.9	176.9	177.0
Dyeing and finishing textiles, including woolen and worsted	96.8	97.4	98.9	104.7	152.4	150.6	151.6	151.8
Carpets and rugs, wool	83.3	82.5	85.5	90.8	135.9	131.0	135.0	137.7
Hats, fur-felt	68.5	68.3	68.0	61.3	120.5	116.7	114.2	83.0
Jute goods, except felts	101.6	101.3	104.1	109.3	183.2	181.6	187.7	182.2
Cordage and twine	138.3	135.8	138.7	131.7	237.7	231.2	232.7	202.2
Apparel and other finished textile products	104.6	104.1	105.7	114.5	164.1	163.4	164.1	157.0
Men's clothing, not elsewhere classified	101.6	101.1	102.7	111.0	158.2	153.8	153.8	148.4
Shirts, collars, and nightwear	80.1	80.2	82.2	93.8	134.2	129.9	131.3	141.9
Underwear and neckwear, men's	78.1	78.8	80.7	85.8	145.0	139.7	142.6	125.4
Work shirts	132.4	132.2	134.7	139.6	229.6	223.5	225.2	222.2
Women's clothing, not elsewhere classified	85.5	85.1	86.1	92.5	132.1	136.1	137.5	127.1
Corsets and allied garments [3]	87.7	85.8	85.7	93.1	142.9	139.6	131.9	128.7
Millinery	77.2	79.5	81.5	85.5	105.5	113.7	122.3	103.3
Handkerchiefs	73.2	73.3	73.8	86.8	126.5	116.5	122.9	131.2
Curtains, draperies, and bedspreads	96.3	94.2	94.8	100.1	169.4	163.3	150.1	130.2
Housefurnishings, other than curtains, etc	128.5	125.8	130.8	159.8	233.3	228.0	216.5	208.2
Textile bags	120.0	116.3	120.1	128.3	189.3	179.2	180.4	189.2
Leather and leather products	90.5	90.8	93.6	103.0	143.2	143.1	147.8	149.2
Leather	87.9	88.6	91.8	102.4	135.1	135.3	137.9	145.9
Boot and shoe cut stock and findings	86.5	86.8	89.4	96.4	131.7	129.5	133.6	132.7
Boots and shoes	81.2	81.8	84.0	91.3	129.8	131.1	135.4	134.5
Leather gloves and mittens	139.4	136.8	138.5	144.6	228.3	211.6	223.8	198.4
Trunks and suitcases	146.6	145.0	156.3	203.1	226.0	215.3	232.5	262.0
Food	122.3	129.0	128.4	128.6	182.2	184.8	187.8	184.4
Slaughtering and meat packing	132.2	132.2	135.0	144.6	201.2	192.4	202.6	176.8
Butter	120.6	124.9	132.2	120.0	175.1	180.3	191.7	154.1
Condensed and evaporated milk	132.4	138.0	146.5	134.7	196.2	208.1	222.2	186.3
Ice cream	93.6	99.4	110.0	102.1	123.1	129.2	149.3	125.6
Flour	120.3	116.6	115.4	104.5	193.3	179.5	183.7	149.6
Feeds, prepared	138.8	138.8	140.3	133.4	225.8	221.0	222.5	194.7
Cereal preparations	135.3	135.3	133.4	131.7	236.3	227.1	230.3	185.0
Baking	111.7	108.6	109.0	114.7	159.0	155.3	152.5	143.5
Sugar refining, cane	101.6	104.1	102.3	81.4	156.4	167.2	154.7	96.1
Sugar, beet	166.9	73.6	51.1	239.2	206.2	100.3	73.7	288.8
Confectionery	115.7	107.6	106.3	129.5	178.1	164.3	184.5	178.0
Beverages, nonalcoholic	132.6	139.5	143.8	116.6	161.2	172.3	182.0	133.3
Malt liquors	133.0	132.9	135.3	120.1	183.7	186.5	192.8	163.5
Canning and preserving	127.8	184.5	174.9	142.4	224.7	304.0	316.3	225.9
Tobacco manufactures	95.5	94.8	94.8	106.4	160.2	154.1	151.1	138.7
Cigarettes	128.1	125.6	125.3	126.0	190.8	179.8	186.6	171.5
Cigars	78.3	78.8	79.1	98.0	141.4	139.5	128.5	145.2
Tobacco (chewing and smoking) and snuff	92.0	90.5	89.6	93.5	140.0	132.1	131.8	130.6

See footnotes at end of table.

TABLE 3.—*Indexes of Wage-Earner Employment and of Wage-Earner Pay Roll in Manufacturing Industries* [1]—Continued

[1939 average = 100]

Industry [2]	Wage-earner employment				Wage-earner pay roll			
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942
Nondurable goods—Continued								
Paper and allied products	118.2	117.2	118.8	113.1	183.0	176.6	181.9	158.9
Paper and pulp	108.0	108.0	109.4	109.5	174.1	168.4	175.2	158.9
Paper goods, other	126.7	125.4	127.3	119.9	185.8	177.8	183.3	156.9
Envelopes	117.7	117.7	120.1	109.6	172.3	170.1	170.8	138.1
Paper bags	112.5	111.0	114.5	105.9	180.6	175.0	176.7	151.4
Paper boxes	123.3	120.0	122.0	107.4	185.1	177.4	180.1	146.9
Printing, publishing, and allied industries	102.3	100.7	102.9	100.9	131.0	128.9	128.8	116.3
Newspapers and periodicals	94.9	94.7	94.4	98.1	114.4	114.5	112.7	109.4
Printing, book and job	105.0	102.0	106.1	101.8	138.0	133.1	134.8	119.2
Lithographing	94.6	96.3	97.8	93.7	125.5	126.5	127.4	104.6
Bookbinding	115.1	112.4	117.1	103.2	183.1	179.8	179.4	139.9
Chemicals and allied products	256.4	255.4	257.0	233.4	438.9	438.4	435.8	351.4
Paints, varnishes, and colors	105.7	104.8	106.5	102.6	160.0	156.2	159.7	130.9
Drugs, medicines, and insecticides	172.2	169.2	169.5	141.5	251.4	242.2	236.1	183.7
Perfumes and cosmetics	107.6	102.4	106.3	101.0	151.6	144.2	142.0	125.6
Soap	98.0	97.4	95.8	103.1	151.0	156.3	149.1	134.3
Rayon and allied products	109.9	108.5	109.1	106.9	168.5	170.3	168.4	144.7
Chemicals, not elsewhere classified	173.1	171.1	169.3	158.9	290.4	285.5	281.0	230.6
Compressed and liquefied gases	159.1	159.4	162.2	160.7	272.2	266.3	274.2	231.2
Cottonseed oil	145.2	134.2	87.1	154.0	281.6	249.4	150.4	246.4
Fertilizers	107.2	105.3	100.3	102.6	216.3	214.2	198.2	164.1
Products of petroleum and coal	119.3	119.0	119.7	119.3	197.7	195.0	197.1	160.8
Petroleum refining	113.2	113.0	113.4	108.4	185.5	182.4	184.8	145.7
Coke and byproducts	110.4	110.5	112.4	122.8	184.3	187.1	185.4	162.6
Paving materials	79.0	70.9	67.0	82.3	146.1	122.8	116.2	131.6
Roofing materials	120.3	120.0	122.3	127.0	211.3	205.5	212.7	203.0
Rubber products	161.3	161.2	160.0	139.9	278.0	273.4	258.4	205.9
Rubber tires and inner tubes	166.4	168.6	165.2	136.7	279.3	277.2	253.8	190.0
Rubber boots and shoes	143.1	144.1	150.0	136.1	243.6	246.8	250.0	208.8
Rubber goods, other	143.5	140.4	140.5	129.0	247.8	238.7	232.0	191.3
Miscellaneous industries	168.0	165.1	166.4	150.7	301.3	297.1	294.5	236.3
Photographic apparatus	176.1	177.6	178.0	144.5	278.2	270.9	268.9	209.4
Pianos, organs, and parts	141.1	137.1	136.0	91.4	266.8	260.9	258.0	151.5
Games, toys, and dolls	88.0	84.1	86.1	75.5	158.0	141.7	145.3	119.8
Buttons	92.2	92.2	95.4	111.9	169.4	164.4	171.2	172.9

[1] Indexes for the major industry groups have been adjusted to final data for 1941 and preliminary data for the second quarter of 1942 made available by the Bureau of Employment Security of the Federal Security Agency, and are not comparable with data in issues of the Monthly Labor Review prior to March 1943. Comparable series for earlier months are available upon request. Indexes for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data.

[2] Unpublished information concerning the following war industries may be obtained by authorized agencies upon request: Aircraft engines; aircraft and parts, excluding engines; alloying; aluminum manufactures; ammunition; cars, electric and steam-railroad; communication equipment; electrical equipment; engines and turbines; explosives and safety fuses; fire extinguishers; firearms; fireworks; locomotives; machine-tool accessories; optical instruments and ophthalmic goods; professional and scientific instruments and fire control equipment; radios and phonographs; and shipbuilding.

[3] Revisions have been made as follows in the data published for earlier months:

Malleable-iron castings.—May 1943 employment and pay-roll indexes to 149.1 and 275.8.

Corsets and allied garments.—May 1943 employment index to 88.8. May, June, and July 1943 pay-roll indexes to 129.5, 137.5, and 130.3.

TABLE 4.—*Estimated Number of Wage Earners in Selected Nonmanufacturing Industries*

Industry	Estimated number of wage earners (in thousands)			
	October 1943	September 1943	August 1943	October 1942
Anthracite mining	69.6	70.0	70.3	76.0
Bituminous-coal mining	373	374	376	427
Metal mining	93.9	95.8	93.1	102.7
Iron	31.8	32.5	33.0	33.8
Copper	31.0	31.5	29.0	30.4
Lead and zinc	18.8	18.8	18.2	18.4
Gold and silver	6.3	6.5	6.4	14.3
Miscellaneous metal mining	6.0	6.5	6.5	6.8
Hotels (year-round) [1]	351	348	348	336
Power laundries	249	250	257	270
Dyeing and cleaning	81.0	80.1	80.6	82.6
Class I steam railroads [2]	1,368	1,374	1,379	1,322

[1] Data include salaried personnel.
[2] Source: Interstate Commerce Commission. Data include salaried personnel.

TABLE 5.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries*

[1939 average=100] [1]

Industry	Employment indexes				Pay-roll indexes			
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1942
Coal mining:								
Anthracite	84.0	84.5	84.9	91.8	146.5	144.2	150.6	123.4
Bituminous	100.6	101.0	101.4	115.3	198.8	203.3	203.8	173.0
Metal mining	106.4	108.5	105.5	116.5	169.2	170.6	169.2	163.6
Iron	158.0	161.3	163.9	163.7	263.1	260.5	273.0	240.3
Copper	130.1	132.0	121.8	127.7	212.7	215.6	204.8	184.0
Lead and zinc	120.7	121.1	116.8	118.5	209.9	209.8	201.9	184.9
Gold and silver	25.3	26.3	25.9	57.5	33.7	34.1	34.5	68.8
Miscellaneous	151.7	164.3	164.2	169.9	241.7	266.5	268.0	258.9
Quarrying and nonmetallic mining	94.1	95.6	98.1	112.9	169.4	168.0	174.8	179.1
Crude-petroleum production [2]	80.9	81.7	82.4	84.4	122.1	124.4	119.7	105.1
Public utilities:								
Telephone and telegraph	126.2	126.9	127.5	123.2	149.0	149.9	149.1	134.5
Electric light and power	84.9	85.5	86.1	92.9	111.8	111.4	111.9	110.7
Street railways and busses	118.1	118.0	117.6	110.0	158.3	157.6	162.1	137.1
Wholesale trade	94.2	93.9	95.3	100.9	129.5	127.9	129.5	123.6
Retail trade	100.6	97.4	94.9	104.3	123.3	119.9	119.7	113.3
Food	107.2	104.1	102.5	112.0	130.4	128.7	131.2	128.2
General merchandise	119.2	110.6	105.4	121.8	138.7	130.5	127.8	133.4
Apparel	114.1	108.4	97.5	112.8	142.0	133.6	122.9	127.8
Furniture and housefurnishings	66.4	65.5	66.4	76.6	86.9	85.3	87.3	92.0
Automotive	63.2	62.5	63.5	63.7	88.0	85.1	87.8	78.9
Lumber and building materials	92.5	92.2	92.8	97.0	128.1	126.2	125.0	123.1
Hotels (year-round) [3] [4]	108.9	108.0	107.8	103.9	147.2	143.7	140.8	127.1
Power laundries	110.2	110.5	113.8	121.0	149.1	146.2	147.3	143.2
Dyeing and cleaning	120.0	118.7	119.4	123.9	173.4	170.6	164.3	153.6
Class I steam railroads [5]	138.6	139.3	139.7	133.8	(6)	(6)	(6)	(6)
Water transportation [7]	176.7	170.3	162.1	90.8	393.6	384.4	363.2	209.3

[1] Mimeographed report showing revised data (1939=100) January 1939–December 1942 for each industry available on request.
[2] Does not include well drilling or rig building.
[3] Cash payments only; additional value of board, room, and tips, not included. Data include salaried personnel.
[4] Revisions have been made as follows in the data published for earlier months:
Hotels (year-round).—July pay-roll index to 139.5.
[5] Source: Interstate Commerce Commission. Data include salaried personnel.
[6] Not available.
[7] Based on estimates prepared by the U. S. Maritime Commission covering employment on steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trade only.

AVERAGE EARNINGS AND HOURS

Average weekly earnings and hours and average hourly earnings for August, September, and October 1943, where available, are given in table 6 for both manufacturing and nonmanufacturing industries.

TABLE 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*

MANUFACTURING

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943
							Cents	*Cents*	*Cents*
All manufacturing	$44.90	$44.43	$43.52	45.4	44.7	45.1	98.9	99.4	96.5
Durable goods	51.46	51.06	49.61	47.3	46.5	46.8	108.8	109.8	106.0
Nondurable goods	35.18	34.73	34.55	42.7	42.2	42.6	82.4	82.3	81.1
Durable goods									
Iron and steel and their products	49.78	49.10	48.32	47.1	46.1	46.6	105.7	106.5	103.7
Blast furnaces, steel works, and rolling mills	52.99	52.67	51.59	46.3	45.3	45.7	114.4	116.4	113.0
Gray-iron and semi-steel castings	49.25	47.72	47.34	48.1	46.6	47.4	103.7	103.6	101.0
Malleable-iron castings	50.19	48.02	46.00	48.3	46.3	46.4	103.9	103.9	99.2
Steel castings	49.97	48.68	48.22	46.7	45.2	46.0	106.7	107.6	104.7
Cast-iron pipe and fittings	38.40	38.15	37.39	44.6	43.8	44.1	85.9	87.1	84.8
Tin cans and other tinware	37.81	37.45	37.01	44.2	43.0	44.0	86.3	86.8	84.0
Wirework	49.58	47.53	47.14	48.6	46.7	47.7	102.2	101.3	98.7
Cutlery and edge tools	43.82	43.06	42.15	46.4	46.1	46.2	93.6	93.4	91.2
Tools (except edge tools, machine tools, files, and saws)	46.02	44.53	44.45	48.3	47.5	47.9	95.5	93.9	93.0
Hardware	45.12	44.22	43.31	48.7	47.5	48.2	92.7	93.1	89.8
Plumbers' supplies	46.04	43.37	44.39	47.6	45.5	46.8	96.2	94.7	94.2
Stoves, oil burners, and heating equipment, not elsewhere classified	45.18	44.29	43.59	47.4	46.2	46.7	95.4	96.0	93.6
Steam and hot-water heating apparatus and steam fittings	47.80	47.93	45.93	48.4	47.8	47.6	98.9	100.3	96.6
Stamped and enameled ware and galvanizing [2]	45.84	44.64	43.07	46.5	44.9	45.1	98.9	99.3	95.4
Fabricated structural and ornamental metalwork	53.45	52.23	52.16	49.1	47.9	49.0	108.9	109.0	106.4
Metal doors, sash, frames, molding, and trim [2]	49.75	51.47	47.57	48.8	49.7	48.4	101.9	103.6	98.3
Bolts, nuts, washers, and rivets	48.33	47.07	46.85	47.7	46.9	47.9	100.4	100.3	97.9
Forgings, iron and steel	58.60	55.89	55.78	48.8	46.8	47.7	121.5	120.6	116.9
Screw-machine products and wood screws [2]	49.68	48.72	48.26	49.9	49.3	49.7	99.5	98.8	97.1
Steel barrels, kegs, and drums [2]	42.23	41.30	42.64	45.2	43.0	44.8	97.7	96.1	95.3
Firearms	57.44	58.15	57.34	47.3	47.7	48.1	121.4	121.9	119.3
Electrical machinery	46.48	46.42	45.68	47.0	46.7	46.9	98.9	99.4	97.4
Electrical equipment	48.75	48.60	48.17	47.4	47.0	47.4	102.9	103.4	101.8
Radios and phonographs	41.00	41.35	39.34	46.6	46.4	46.2	88.1	89.2	85.2
Communication equipment	42.75	42.24	41.43	46.1	45.7	45.8	92.9	92.5	90.5
Machinery, except electrical	53.92	53.12	51.92	49.7	48.6	48.8	108.5	109.3	106.4
Machinery and machine-shop products	52.59	52.12	50.64	49.1	48.2	48.4	106.8	107.9	104.5
Engines and turbines	60.15	58.90	57.49	50.7	49.6	49.7	119.1	119.3	116.0
Tractors	52.03	51.14	50.99	46.8	45.9	46.5	111.3	111.3	109.6
Agricultural machinery, excluding tractors	51.79	52.00	50.17	47.7	46.8	47.1	108.5	111.0	106.4
Machine tools	55.34	53.43	52.49	51.3	49.8	49.7	108.0	107.2	105.6
Textile machinery	47.16	46.04	46.09	49.8	48.9	49.3	94.7	94.1	93.4
Typewriters	48.14	48.09	46.26	48.6	48.8	47.6	99.1	98.5	97.1
Cash registers, adding and calculating machines	62.24	60.94	57.93	52.0	50.6	49.7	120.1	121.7	117.4
Washing machines, wringers, and driers, domestic [2]	45.69	45.83	44.68	46.8	46.2	46.7	97.6	99.3	95.6
Sewing machines, domestic and industrial [2]	57.90	59.29	56.30	53.4	52.5	52.8	109.0	113.4	107.2
Refrigerators and refrigeration equipment [2]	50.48	51.15	48.97	47.9	48.1	47.3	105.3	106.2	103.6
Transportation equipment, except automobiles	58.60	59.09	56.35	47.6	47.2	47.0	123.1	125.2	119.9
Locomotives	63.51	60.09	59.29	50.0	47.8	48.0	126.9	125.6	123.4
Cars, electric- and steam-railroad [2]	50.10	47.39	51.09	46.3	43.2	46.3	108.3	109.6	110.3
Aircraft and parts, excluding aircraft engines	52.40	52.56	49.26	46.8	46.7	46.1	111.5	112.5	107.0
Aircraft engines	60.63	61.28	58.41	47.6	47.2	46.5	127.5	129.7	125.6
Shipbuilding and boatbuilding	62.00	63.68	60.80	47.7	47.6	47.6	130.7	133.7	127.7
Motorcycles, bicycles, and parts [2]	50.37	48.93	49.53	48.3	46.4	48.6	104.3	105.5	101.9

See footnotes at end of table.

TABLE 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943
Durable goods—Continued									
							Cents	*Cents*	*Cents*
Automobiles	$59.93	$58.06	$57.41	47.6	45.9	47.1	125.9	126.5	121.9
Nonferrous metals and their products	48.46	48.95	47.39	47.0	46.8	46.6	103.1	104.6	101.7
Smelting and refining, primary, of nonferrous metals	47.96	48.33	47.60	45.7	45.6	46.2	104.9	107.0	104.2
Alloying and rolling and drawing of nonferrous metals, except aluminum	53.46	53.95	52.15	48.2	48.0	47.7	110.8	112.4	109.5
Clocks and watches	40.94	40.97	39.25	46.0	45.9	45.1	89.0	89.5	87.2
Jewelry (precious metals) and jewelers' findings	38.79	38.61	37.19	43.7	44.5	43.7	88.0	87.0	84.8
Silverware and plated ware [2]	45.80	44.12	45.21	46.7	44.4	46.7	98.2	99.4	97.0
Lighting equipment	45.50	46.86	45.55	45.6	45.5	45.7	99.9	102.9	99.8
Aluminum manufactures	50.07	50.71	49.01	47.7	47.8	47.2	105.7	106.8	104.6
Lumber and timber basic products	34.21	33.41	33.72	44.2	43.5	45.2	77.4	76.8	74.6
Sawmills and logging camps	33.39	32.67	32.99	43.6	43.1	45.0	76.5	75.9	73.2
Planing and plywood mills	36.79	35.68	35.84	46.0	44.8	45.8	80.2	79.6	78.6
Furniture and finished lumber products	34.84	33.62	33.45	44.9	43.6	44.6	77.6	77.1	75.0
Furniture	35.56	34.23	34.29	44.8	43.3	44.5	79.7	79.3	77.1
Caskets and other morticians' goods [2]	37.11	35.57	35.73	45.4	44.2	45.4	81.7	80.4	78.8
Wood preserving [2]	33.17	33.07	31.14	45.1	45.0	43.9	73.5	73.5	71.0
Stone, clay, and glass products	38.11	36.93	37.06	43.8	42.3	43.4	87.0	87.3	85.4
Glass and glassware	39.35	37.96	38.04	43.0	40.8	42.0	91.7	93.1	90.5
Glass products made from purchased glass [2]	33.13	31.36	31.56	44.1	42.5	43.6	75.1	73.7	72.3
Cement	40.11	39.05	39.80	44.3	42.9	44.7	90.5	91.1	89.0
Brick, tile, and terra cotta	32.00	30.84	31.36	41.7	40.3	41.4	76.1	76.0	75.9
Pottery and related products	34.63	33.31	34.00	41.4	39.9	41.3	85.3	85.5	83.6
Gypsum [2]	45.35	42.33	45.01	49.8	47.1	50.0	91.1	89.8	90.0
Lime [2]	35.86	35.15	36.66	47.3	46.2	48.8	74.9	75.0	74.4
Marble, granite, slate, and other products	37.55	35.35	36.01	43.1	41.3	42.8	86.7	85.5	83.9
Abrasives [2]	45.30	45.05	44.19	47.1	46.9	46.6	96.3	96.1	94.9
Asbestos products	45.48	45.94	44.56	47.9	47.9	47.8	94.9	95.9	93.3
Nondurable goods									
Textile-mill products and other fiber manufactures	28.08	27.68	27.46	41.6	41.0	41.3	67.5	67.5	66.5
Cotton manufactures, except smallwares	24.57	24.58	24.03	41.5	41.1	41.0	59.3	59.9	58.6
Cotton smallwares	32.15	30.79	31.87	43.2	41.8	43.5	74.5	73.7	73.3
Silk and rayon goods	27.85	26.79	26.97	42.4	40.9	41.7	65.5	65.5	64.7
Woolen and worsted manufactures, except dyeing and finishing	34.24	33.62	34.08	41.7	41.3	41.9	82.1	81.5	81.3
Hosiery	28.01	27.07	26.94	39.1	38.1	38.7	71.6	71.1	69.7
Knitted cloth	32.65	31.88	32.35	42.8	42.6	43.5	75.5	75.1	74.1
Knitted outerwear and knitted gloves	28.23	27.76	27.27	40.1	39.7	40.4	70.0	69.5	67.0
Knitted underwear	25.56	24.80	24.60	41.3	40.6	41.2	60.8	60.5	59.3
Dyeing and finishing textiles, including woolen and worsted	32.86	31.96	31.75	44.5	43.7	43.9	73.8	73.1	72.3
Carpets and rugs, wool	37.61	36.63	36.42	42.9	42.1	42.0	88.0	87.3	87.0
Hats, fur-felt	40.54	39.37	38.58	41.3	40.9	40.7	98.0	96.3	94.8
Jute goods, except felts [2]	32.11	31.91	32.10	43.5	43.4	44.3	73.8	73.6	72.4
Cordage and twine [2]	30.53	30.23	29.77	44.6	44.3	44.2	68.3	68.1	67.1
Apparel and other finished textile products	27.86	27.79	27.48	37.8	37.4	37.8	73.7	74.3	72.7
Men's clothing, not elsewhere classified	29.34	28.80	28.34	38.0	37.4	37.4	77.3	76.8	75.3
Shirts, collars, and nightwear	23.01	22.28	21.92	38.2	37.1	37.5	60.2	60.0	58.5
Underwear and neckwear, men's	25.38	24.14	24.11	38.0	36.6	37.5	66.3	65.9	64.4
Work shirts	19.20	18.64	18.45	38.7	38.0	37.8	49.2	48.7	48.6
Women's clothing, not elsewhere classified [2]	32.92	33.95	33.74	36.4	36.5	37.3	88.8	91.1	88.8
Corsets and allied garments [2]	28.47	28.39	26.80	40.6	41.1	40.5	70.2	68.2	66.4
Millinery	33.24	34.80	36.49	31.6	32.7	33.9	88.5	89.2	90.1
Handkerchiefs [2]	22.53	20.71	21.69	38.5	36.0	38.3	58.5	57.5	56.6
Curtains, draperies, and bedspreads [2]	23.73	23.53	21.49	39.2	39.5	38.0	60.4	59.5	56.5
Housefurnishings, other than curtains, etc. [2]	32.09	32.00	29.24	43.1	42.4	41.1	75.8	76.8	71.9
Textile bags [2]	27.54	26.93	26.26	42.6	41.9	41.8	65.0	64.7	63.2

See footnotes at end of table.

TABLE 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943
Nondurable goods—Continued							*Cents*	*Cents*	*Cents*
Leather and leather products	$30.22	$29.99	$30.00	39.5	39.2	40.0	76.5	76.5	75.0
Leather	37.99	37.73	37.21	42.7	42.5	42.2	89.4	89.0	88.4
Boot and shoe cut stock and findings [3]	30.70	30.09	30.18	41.3	40.6	41.2	75.2	75.0	73.7
Boots and shoes	28.33	28.38	28.49	38.5	38.4	39.3	73.3	73.6	72.1
Leather gloves and mittens [3]	27.97	26.56	27.60	39.0	36.7	39.3	72.1	72.5	70.7
Trunks and suitcases [3]	32.54	31.31	31.34	40.6	39.9	40.9	79.7	77.7	75.3
Food	35.86	34.60	35.46	44.0	43.2	44.1	81.5	80.1	80.4
Slaughtering and meat packing	41.94	40.11	41.37	47.3	45.8	47.0	89.0	87.9	88.4
Butter	31.99	31.79	31.90	47.1	47.1	48.6	67.5	66.8	65.1
Condensed and evaporated milk [3]	33.72	34.37	34.48	48.4	48.8	49.7	69.7	70.5	69.4
Ice cream	36.03	35.61	36.99	45.4	45.4	48.1	76.1	75.1	74.6
Flour	40.44	38.74	39.94	49.7	48.3	49.7	81.4	80.3	80.5
Cereal preparations [3]	44.59	42.87	44.03	46.7	45.2	47.0	95.5	94.8	93.6
Baking	36.43	36.80	36.01	45.0	45.0	44.9	81.1	81.8	80.2
Sugar refining, cane	37.25	38.48	36.21	44.8	46.7	44.2	82.4	82.3	81.8
Sugar, beet	30.86	34.00	35.97	38.0	36.0	37.9	81.1	94.5	94.9
Confectionery	28.64	28.26	26.90	41.7	41.2	40.6	69.2	69.0	66.6
Beverages, nonalcoholic	32.11	32.62	33.53	42.4	43.7	45.3	76.5	75.6	74.6
Malt liquors	48.28	49.17	49.87	45.1	45.8	46.6	107.6	107.4	107.4
Canning and preserving	27.94	26.41	28.80	38.4	37.9	39.4	73.8	70.2	73.9
Tobacco manufactures	28.54	27.67	27.04	42.6	41.3	41.1	67.0	67.0	65.8
Cigarettes	31.62	30.49	31.72	43.5	41.1	43.6	72.6	74.2	72.7
Cigars	26.01	25.56	23.27	42.0	41.7	39.0	62.2	61.5	59.6
Tobacco (chewing and smoking) and snuff	26.90	25.76	26.03	41.2	39.9	40.5	64.9	64.6	64.3
Paper and allied products	37.06	36.17	36.66	45.7	44.6	45.6	81.1	81.1	80.4
Paper and pulp	40.63	39.36	40.44	47.3	45.7	47.1	86.0	86.1	85.9
Envelopes [3]	35.24	34.79	34.15	44.9	44.6	44.6	78.4	77.9	76.6
Paper bags [3]	32.70	32.12	31.43	44.5	42.9	43.3	74.0	75.3	72.9
Paper boxes	32.95	32.50	32.46	43.9	43.3	44.0	75.1	75.1	73.9
Printing, publishing, and allied industries	41.57	41.81	40.68	40.2	40.4	40.6	103.4	103.5	100.2
Newspapers and periodicals	46.33	46.27	45.69	37.7	37.9	37.6	120.9	121.5	120.0
Printing, book and job	38.96	38.78	37.74	41.2	41.5	42.1	94.8	94.7	90.5
Lithographing [3]	43.17	42.77	42.40	42.7	42.5	43.3	101.8	100.7	98.0
Chemicals and allied products	42.87	42.91	42.41	46.0	45.7	45.7	93.2	93.9	92.8
Paints, varnishes, and colors	44.17	43.47	43.48	47.0	46.4	46.7	94.3	93.8	93.3
Drugs, medicines, and insecticides [3]	34.58	34.02	33.18	44.2	43.3	43.3	78.6	77.7	76.7
Soap	44.01	45.85	44.45	45.9	46.9	46.5	95.9	97.7	95.6
Rayon and allied products	37.22	38.15	37.50	42.2	42.2	42.5	88.2	90.5	88.3
Chemicals, not elsewhere classified	50.34	50.08	49.94	46.8	46.1	46.6	107.6	108.6	107.1
Explosives and safety fuses	46.85	47.92	47.28	46.1	46.5	46.9	101.7	103.0	100.9
Ammunition, small-arms	43.77	43.60	42.47	46.1	46.2	46.3	94.9	94.4	91.8
Fireworks	38.08	37.49	37.51	42.5	41.6	41.7	89.6	90.1	89.9
Cottonseed oil	26.45	25.34	23.53	55.0	53.3	48.0	47.7	47.4	48.7
Fertilizers	28.86	29.41	28.51	44.2	44.2	43.8	65.4	66.6	65.1
Products of petroleum and coal	53.04	52.32	52.53	46.0	45.3	46.2	115.3	115.5	113.7
Petroleum refining	56.10	55.34	55.96	46.0	45.1	46.2	122.2	122.3	120.8
Coke and byproducts [3]	45.99	46.64	45.44	44.8	45.1	45.1	102.6	103.6	100.7
Roofing materials [3]	45.36	44.21	44.99	48.8	47.6	49.3	93.0	92.9	91.2
Rubber products	48.08	47.46	44.96	45.4	44.9	44.3	105.9	105.7	101.5
Rubber tires and inner tubes	56.49	55.18	51.54	46.0	45.3	44.3	123.1	122.2	116.4
Rubber boots and shoes	38.39	38.65	37.61	44.3	44.3	44.1	86.6	87.2	85.3
Rubber goods, other	40.42	40.01	38.91	45.0	44.5	44.3	90.0	90.1	88.1
Miscellaneous industries	41.86	41.36	40.53	46.1	45.6	45.8	90.8	90.7	88.5
Professional and scientific instruments and fire-control equipment	51.98	52.17	50.08	50.8	50.4	50.3	102.4	103.6	99.7
Photographic apparatus [3]	47.12	45.44	44.85	46.3	44.8	44.7	102.0	101.6	100.5
Pianos, organs, and parts [3]	45.90	46.24	46.09	47.7	47.6	48.1	96.4	97.3	96.0

See footnotes at end of table.

TABLE 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*—Continued

NONMANUFACTURING

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943	Oct. 1943	Sept. 1943	Aug. 1943
							Cents	*Cents*	*Cents*
Coal mining:									
Anthracite	$44.74	$43.73	$45.48	41.7	40.6	42.3	106.9	107.8	107.3
Bituminous	45.22	46.05	46.15	39.0	39.4	40.3	116.1	117.0	115.0
Metal mining	45.17	44.46	45.31	45.1	44.5	46.0	99.4	99.5	98.3
Quarrying and nonmetallic mining	38.65	37.69	38.05	47.7	46.4	47.7	81.1	81.2	80.0
Crude-petroleum production	50.82	51.23	48.80	44.3	44.5	43.2	112.2	113.0	110.3
Public utilities:									
Telephone and telegraph	36.48	36.45	36.10	42.0	42.3	42.1	86.8	86.6	86.1
Electric light and power	46.14	45.41	45.24	42.7	42.3	42.0	107.8	106.3	107.6
Street railways and busses	45.21	44.77	46.09	49.7	49.1	50.9	88.9	89.4	88.7
Wholesale trade	40.69	40.61	40.44	42.7	42.6	42.9	95.7	95.2	94.4
Retail trade	24.93	25.35	25.98	39.9	40.3	42.1	68.8	68.7	67.8
Food	29.14	29.78	30.49	40.3	40.8	42.7	67.9	68.3	67.6
General merchandise	20.42	20.73	21.22	35.7	36.2	38.2	56.3	56.2	56.0
Apparel	26.39	26.22	26.89	36.5	36.6	38.4	72.5	71.3	69.7
Furniture and housefurnishings	35.44	35.47	35.71	43.6	44.0	45.0	84.2	83.3	82.6
Automotive	38.38	37.55	38.19	47.6	47.2	48.4	82.0	81.7	79.4
Lumber and building materials	36.53	35.80	35.51	43.9	43.8	44.0	85.0	84.4	82.1
Hotels (year-round) [2] [5]	21.12	20.87	20.32	44.5	44.8	44.5	47.0	46.5	45.5
Power laundries	25.12	24.67	23.93	44.0	44.0	44.0	57.6	56.3	55.0
Dyeing and cleaning	29.36	29.20	28.03	44.1	45.0	44.2	67.6	66.6	64.8
Brokerage	49.94	49.85	50.80	(4)	(4)	(4)	(4)	(4)	(4)
Insurance	43.41	42.45	42.45	(4)	(4)	(4)	(4)	(4)	(4)
Building construction	50.54	49.59	48.93	39.7	39.4	39.3	127.3	125.8	124.6

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during any part of one pay period ending nearest the 15th of the month. As not all reporting firms furnish man-hour data, average hours and average hourly earnings for individual industries are based on a smaller sample than are weekly earnings. Data for the current and immediately preceding months are subject to revision.

[2] Revisions have been made as follows in the data published for earlier months:

Stamped and enameled ware and galvanizing.—August 1942 to July 1943 average weekly earnings to $36.74, $36.31, $39.23, $39.44, $41.24, $41.34, $40.88, $41.72, $42.94, $43.36, $42.71, and $41.87; average weekly hours to 43.9, 41.9, 44.7, 44.6, 45.9, 45.2, 45.2, 45.5, 46.0, 46.0, 45.6, and 44.2 hours; August 1942 to January 1943 average hourly earnings to 84.0, 86.6, 87.7, 88.4, 89.9, and 91.4 cents. Revised averages are not strictly comparable with previously published data for months prior to August 1942. July 1942 weekly earnings, weekly hours, and hourly earnings comparable with August are $35.53, 43.1 hours, and 82.3 cents.

Cars, electric- and steam-railroad.—September, October, and November 1942 average weekly earnings to $44.75, $48.09, and $43.24.

Silverware and plated ware.—March, April, and May 1943 average weekly earnings to $43.39, $45.11, and $45.37.

Women's clothing, not elsewhere classified.—June 1943 average hourly earnings to 83.1 cents.

Corsets and allied garments.—May 1943 average weekly earnings to $27.35.

Drugs, medicines, and insecticides.—July 1943 average weekly earnings and weekly hours to $32.88 and 42.9 hours.

Hotels.—July average weekly earnings to $20.14.

[3] Comparable data for months from June 1942 to June 1943, inclusive, available on request.

[4] Not available.

[5] Cash payments only; additional value of board, room, and tips, not included.

Civilian Labor Force, November 1943

DECLINES of 600,000 in employment and 100,000 in unemployment combined to reduce the civilian labor force by 700,000 persons between October and November 1943, according to the Bureau of the Census Monthly Report on the Labor Force.

TABLE 1.—*Estimated Civilian Labor Force by Employment Status and Sex, in Selected Months, November 1940–November 1943* [1]

[Source: U. S. Department of Commerce, Bureau of the Census]

Sex and employment status	Estimated number (millions of persons)				
	November 1943	October 1943	November 1942	November 1941	November 1940
Both sexes	51.9	52.6	54.5	54.1	53.7
Unemployed [2]	.6	.7	1.7	3.9	7.4
Employed	51.3	51.9	52.8	50.2	46.3
Nonagriculture	41.5	41.2	43.0	41.2	37.6
Agriculture	9.8	10.7	9.8	9.0	8.7
Males	35.6	35.9	38.5	40.3	41.1
Unemployed [2]	.3	.4	1.0	2.6	5.3
Employed	35.3	35.5	37.5	37.7	35.8
Nonagriculture	26.8	26.7	29.1	29.5	27.5
Agriculture	8.5	8.8	8.4	8.2	8.3
Females	16.3	16.7	16.0	13.8	12.6
Unemployed [2]	.3	.3	.7	1.3	2.1
Employed	16.0	16.4	15.3	12.5	10.5
Nonagriculture	14.7	14.5	13.9	11.7	10.1
Agriculture	1.3	1.9	1.4	.8	.4

[1] All data exclude persons in institutions.
[2] Includes persons on public emergency projects prior to July 1943.

The reduction in civilian employment between October and November was the net result of divergent seasonal movements in agricultural and nonagricultural activity. The number of persons employed in agriculture declined by 900,000 as harvests were completed in many areas. This was partially offset by an increase of 300,000 in nonagricultural employment—largely a result of the expansion in retail trade for the early Christmas season. The decline of 100,000 in unemployment brought the number of unemployed in the United States to a new low of 600,000.

TABLE 2.—*Estimated Civilian Labor Force, Employment, and Unemployment, by Age and Sex, in October and November 1943 and November 1942* [1]

[Source: U. S. Department of Commerce, Bureau of the Census]

Employment status and age	Estimated number (millions of persons)								
	Total			Male			Female		
	November 1943	October 1943	November 1942	November 1943	October 1943	November 1942	November 1943	October 1943	November 1943
Total civilian labor force	51.9	52.6	54.5	35.6	35.9	38.5	16.3	16.7	16.0
14–19 years	4.8	5.0	5.7	2.5	2.5	3.5	2.3	2.5	2.2
20–24 years	4.8	4.8	5.8	1.9	1.9	2.9	2.9	2.9	2.9
25–34 years	10.9	11.2	12.3	7.2	7.4	8.5	3.7	3.8	3.8
35–44 years	12.1	12.1	11.8	8.6	8.5	8.5	3.5	3.6	3.3
45–54 years	10.1	10.1	9.9	7.8	7.8	7.7	2.3	2.3	2.2
55–64 years	6.5	6.6	6.2	5.3	5.4	5.0	1.2	1.2	1.3
65 years and over	2.7	2.8	2.8	2.3	2.4	2.4	.4	.4	.4
Total persons employed	51.3	51.9	52.8	35.3	35.5	37.5	16.0	16.4	15.3
14–19 years	4.6	4.8	5.4	2.4	2.5	3.3	2.2	2.3	2.1
20–24 years	4.7	4.8	5.6	1.8	1.9	2.8	2.9	2.9	2.8
25–34 years	10.8	11.1	12.1	7.2	7.3	8.4	3.6	3.8	3.7
35–44 years	12.0	12.0	11.5	8.6	8.5	8.4	3.4	3.5	3.1
45–54 years	10.0	10.0	9.6	7.7	7.7	7.5	2.3	2.3	2.1
55–64 years	6.5	6.5	6.9	5.3	5.3	4.8	1.2	1.2	1.1
65 years and over	2.7	2.7	2.7	2.3	2.3	2.3	.4	.4	.4
Total persons unemployed [2]	.6	.7	1.7	.3	.4	1.0	.3	.3	.7
14–19 years	.2	.2	.3	.1	(3)	.2	.1	.2	.1
20–24 years	.1	(3)	.2	(3)	(3)	.1	(3)	(3)	.1
25–34 years	.1	.1	.2	(3)	.1	.1	.1	(3)	.1
35–44 years	.1	.1	.3	(3)	(3)	.1	.1	(3)	.3
45–54 years	.1	.1	.3	.1	.1	.2	(3)	(3)	.1
55–64 years	(3)	.1	.3	(3)	.1	.2	(3)	(3)	.1
65 years and over	(3)	(3)	.1	(3)	(3)	.1	(3)	(3)	(3)

[1] All data exclude persons in institutions.
[2] Persons on public emergency work projects are included with the unemployed prior to July 1943.
[3] Less than 50,000.

Recent Publications of Labor Interest

January 1944

Conciliation and Arbitration

The United States Conciliation Service. By Vincent I. Breen. Washington, 1943. 258 pp. (Catholic University of America studies in economics, Vol. II.)

Fourth annual report of the Division of Conciliation, Minnesota Department of Labor and Industry . . . covering the year July 1, 1942, through June 30, 1943. St. Paul, 1943. 32 pp.

Cooperative Movement

Activities of consumers' cooperatives in 1942. Washington, U. S. Bureau of Labor Statistics, 1943. 10 pp. (Bull. No. 757; reprinted from Monthly Labor Review, October 1943, with additional data.) 5 cents, Superintendent of Documents, Washington.

Operations of credit unions, 1942. Washington, U. S. Bureau of Labor Statistics, 1943. 7 pp. (Serial No. R. 1587; reprinted from Monthly Labor Review, October 1943.) Free.

Problems of group health associations. By Edward C. McDonagh. (In Sociology and Social Research, Los Angeles, July–August 1943, pp. 453–461. 60 cents.)
Discusses the various difficulties faced by cooperative health associations, including those (such as draft of the staff physicians) arising from the war, and tells how the war has affected individual named associations. Other problems include recruitment of members, location of offices, opposition from organized medicine, and questions of control of the associations.

Financial analysis and membership problems of Cooperativo Pozuelo, Inc. By Martín Vélez. [Rio Piedras], University of Puerto Rico, Agricultural Experiment Station, 1943. 14 pp. (Mimeographed report No. 22.)
Detailed account of operations and other problems of a combined fishing (and fish-marketing) and farming cooperative in Puerto Rico.

People's year book, 1943. Manchester, England, Cooperative Wholesale Society, Ltd., [1943]. 120 pp., illus.
Contains much detailed data on the operations of the English and Scottish consumers' cooperative movements, special articles on cooperative, social, and economic subjects, and a directory of national and international cooperative organizations, as well as data on developments in a few foreign countries.

Cost and Standards of Living

Living costs in Puerto Rico. Washington, U. S. Bureau of Labor Statistics, 1943. 11 pp. (Serial No. R. 1585; reprinted from Monthly Labor Review, October 1943.) Free.

The standard of living of German labor under Nazi rule. By Hilde Oppenheimer-Bluhm. New York, New School for Social Research, 1943. 71 pp. (Social Research supplement V.) 50 cents.
This study, confined to the three aspects (1) labor's purchasing power, (2) conditions under which labor earns its income, and (3) goods and services

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

supplied to labor by the community, demonstrates the changes in the standard of living under Nazi rule by comparisons between 1938–39 and 1928–29. It attributes the changes in living and working conditions to the impact of Nazi policy rather than to the influence of the business cycle, without aiming to investigate to what extent the movement of the business cycle itself was due to Nazi policy.

Economic and Social Problems

Industry after the war—who is going to run it? By Charles Madge. London, Pilot Press, Ltd., 1943. 64 pp., charts, illus. (Target for tomorrow, No. 1.) 3s. 6d.

The author foresees three types of industrial concerns—State owned and State managed, privately owned with some State-appointed directors, and privately owned and privately managed. The Government would have final responsibility for deciding ownership and control. Labor interests would be safeguarded.

Reflections on the revolution of our time. By Harold J. Laski. New York, Viking Press, 1943. 419 pp. $3.50.

The revolutionary nature of the present period, which the author compares with other great revolutionary eras, is described as arising out of insecurity and fear and a sense of irrational inequalities. The choice before the world, it is indicated, is continued violent conflict or cooperation between nations and between groups within nations to remove inequality, insecurity, and fear.

The United States in the world economy: The international transactions of the United States during the interwar period. By Hal B. Lary and Associates. Washington, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, 1943. 216 pp., pasters, charts. (Economic series No. 23.) 35 cents.

Comprehensive analysis of the international transactions of the United States from the end of World War I to the beginning of World War II, covering dollars made available to foreign countries by the United States through purchases of goods, services, and investments abroad, and the uses to which dollars are put by foreign countries in making similar purchases in the United States.

A new system for the taxation of weekly wage earners [in Great Britain]. London, Treasury, 1943. 20 pp. (Cmd. 6469.) 4d.

Provides for current collection of taxes.

Education and Training

Training services available to war industries and agriculture. Washington, U. S. War Manpower Commission, 1943. 10 pp.

Pre-induction vocational training in aircraft maintenance. Prepared jointly by the War Department and the Vocational Division, U. S. Office of Education. Washington, U. S. War Department, 1943. 24 pp. (PIT–333.)

Supplement to PIT–330, Pre-induction training in vocational schools, vocational departments, and trade schools. Other supplements already published cover auto mechanics, machine-shop practice, and electrical signal communication (PIT 331, 332, and 334, respectively).

Ambassador to industry: The idea and life of Herman Schneider. By Clyde W. Park. New York, Bobbs-Merrill Co., 1943. 324 pp., illus. $3.50.

The author discusses the educational theories of the subject of the book, particularly the cooperative plan of education by which students go to school part of the time and work part of the time at actual jobs in industrial concerns.

"1000 and one", the blue book of non-theatrical films, 19th annual edition, 1943–44. Chicago, Educational Screen, 1943. 136 pp. 75 cents.

The many subjects covered by the films listed include cooperatives, various labor matters, vocational guidance, handicrafts, and agricultural and manufacturing processes. The list shows where the films are obtainable, the prices, and other data.

Educational reconstruction. London, Board of Education of Great Britain, 1943. 36 pp. (Cmd. 6458.) 6d.

Contains the British Government's proposals for educational reforms to be put in effect after the war.

Food and Nutrition

Income and food consumption. By W. C. Hopper. (In Canadian Journal of Economics and Political Science, Toronto, Ontario, November 1943, pp. 487–506. $1, Canadian currency.)

Summarizes the results of studies, made during recent years, showing the relation of consumption of protective foods such as milk and eggs to family income. There was found to be a definite correlation between the size of income and the quantity of such foods consumed per capita.

Planning meals for industrial workers. Washington, U. S. Department of Agriculture, Food Distribution Administration, 1943. 28 pp.

Contains suggestions to agencies that are responsible for serving food to industrial workers. Pattern meals which meet the day's dietary allowance are given.

Wartime food management—an analysis with recommendations. By Joseph S. Davis. Los Angeles, Calif., Los Angeles Chamber of Commerce, August 11, 1943. 46 pp. (The Economic Sentinel, Vol. 1, No. 1.)

World needs for U. S. food and fiber. By John D. Black. Washington, National Planning Association, 1943. 71 pp., charts. (Planning pamphlets Nos. 25 and 26.) 50 cents.

The author estimates the food needs of the armed forces and of the Allies and friendly nations and methods by which these needs may be met.

Alimentación de la clase obrera en Medellín; Alimentación de la clase media en Bogotá. By José Francisco Socarrás. (In Anales de Economía y Estadística, Contraloría General de la República, Bogotá, November 5, 1942, pp. 16–28; March 5, 1943, pp. 21–28.)

These two articles deal, respectively, with the diets of working-class families in Medellín and of middle-class families in Bogotá, Colombia. Statistics show the number and sizes of families studied, amounts and caloric values of the principal kinds of food consumed, and other information.

Starvation in Europe. By Geoffrey H. Bourne. London, George Allen & Unwin, Ltd., 1943. 144 pp., map, illus. 5s.

The book attempts to show the present nutritional state of Europe. The discussion of the pre-war food situation shows the inadequacies of the diets in many countries, even in normal times, but the main part of the volume deals with the starvation or near starvation conditions prevailing in the occupied countries at the present time.

Housing

New housing for war workers, 1940–43. Washington, U. S. Bureau of Labor Statistics, 1943. 8 pp. (Serial No. R. 1566; reprinted from Monthly Labor Review, September 1943.) Free.

Post-war building. New York, Eggers and Higgins, 1943. 21 pp.

A firm of architects discusses post-war housing problems, the availability of labor, and possible changes in building materials and techniques. The importance of planning and timing is stressed.

The labor value of the building dollar [in Canada]. By O. J. Firestone. Ottawa, Department of Finance, Housing Administration, 1943. 43 pp., bibliography, charts.

Covers results of 8 years' administration under the housing legislation of Canada. The period covered is October 1, 1935, to September 30, 1943. Estimates are given of on-site and off-site employment on publicly-financed residential building.

Low-cost housing in Latin America. By Robert C. Jones. Washington, Pan American Union, Division of Labor and Social Information, October 1943. 20 pp., illus.; mimeographed.

Report on low-cost housing programs in 18 Latin American Republics (all but Haiti and Honduras). Indicates the principal housing laws, some as late as 1943, and discusses inter-American and national efforts to meet housing problems.

Resultados de la ley 2607 sobre vivienda popular, [Province of Santa Fe, Argentina] (In La Habitación Popular, Boletín Oficial de la Comisión Nacional de Casas Baratas, Ministerio del Interior, Buenos Aires, January–June 1943, pp. 71–82.)

Deals with the housing situation in the Argentine Province of Santa Fe as of December 31, 1942, including results of low-cost housing undertakings of the Provincial Government, with discussion of the need for more effective application of the present legislation as well as suggestions for amendment.

Industrial Accidents and Workmen's Compensation

The conservation of manpower in United States war industries: Industrial health and safety campaign. By V. A. Zimmer. (In International Labor Review, International Labor Office, Montreal, November 1943, pp. 611–618. 60 cents.)

Account of the work of the National Committee for the Conservation of Manpower in War Industries in cooperation with the Division of Labor Standards of the U. S. Department of Labor. The Committee, appointed by the Secretary of Labor and composed of 22 representatives of management, labor, State labor offices, and insurance interests, has attempted to make available, especially to war industries, the best safety-engineering and industrial-hygiene consultant services for handling problems of industrial accidents and diseases.

A report of union participation: Joint safety committees at work. Washington, U. S. Department of Labor, Division of Labor Standards, 1943. 16 pp. (Bull. No. 61.) 10 cents, Superintendent of Documents, Washington.

Accidents in airplane factories [in New York State] in 1942 analyzed by cause. (In Industrial Bulletin, New York State Department of Labor, Albany, September 1943, pp. 350, 351, 353. 10 cents.)

The data are for compensated accidents in aircraft and aircraft-parts plants.

Twenty-first annual report of the Safety in Mines Research Board, [Great Britain], 1942. London, 1943. 23 pp. 1s.

Principal features of workmen's compensation laws—as of September 1943. Washington, U. S. Department of Labor, Division of Labor Standards, 1943. 20 pp. (Bull. No. 62—revision of Bull No. 56; reprinted from Monthly Labor Review of U. S. Bureau of Labor Statistics, October 1943.) 10 cents, Superintendent of Documents, Washington.

Labor Legislation

New York labor laws enacted in 1943. Albany, New York State Department of Labor, 1943. 58 pp. (Special bull. No. 215.) 30 cents.

Labor laws of the State of Oklahoma, edition 1943. Oklahoma City, Department of Labor, 1943. 131 pp.

El extranjero en la legislación argentina del trabajo. By Alejandro M. Unsain. (In Derecho del Trabajo, Buenos Aires, June 1943, pp. 241–246.)

Discussion of provisions concerning aliens in Argentine Federal and State labor legislation, citing specific laws and decrees governing immigration, labor contracts, indemnities for industrial accidents, unemployment benefits, home work, pensions, and maternity insurance.

Consolidação das leis do trabalho, [Brazil]. Rio de Janeiro, Ministério do Trabalho, Indústria e Comércio, Comissão Técnica de Orientação Sindical, 1943. 262 pp.

Consolidation of the labor laws of Brazil concerning workbooks, wages and hours of labor, paid vacations, industrial hygiene, working conditions, nationalization of labor, protection of working women and minors, labor organizations, labor-law enforcement, etc., made effective by decree law No. 5452 of May 1, 1943.

"An English translation of the consolidation of Brazilian labor laws" has been published by the American Chamber of Commerce of São Paulo.

A legislação de guerra de iniciativa do Ministério do Trabalho, [Brazil]. Compiled by Evaristo de Morais Filho. (In Revista do Trabalho, Rio de Janeiro, May 1943, pp. 21–26.)

Chronological list of wartime legislative measures initiated by the Brazilian Minister of Labor, enacted from January 23, 1942, to February 2, 1943, covering such matters as hours of labor, paid vacations, labor organizations, vocational education, restrictions on aliens, and security of jobs for men called to military service.

Legislación del trabajo, [Nicaragua]. Managua, D. N., Ministerio de Agricultura y Trabajo, Sección del Trabajo, 1941. 81 pp.

Compilation of labor legislation of Nicaragua through 1940, including labor articles of the constitution of 1939, international conventions ratified, and national laws and regulations on Sunday rest, workers' safety, cooperatives, employment of nationals, workmen's compensation, wage protection, and other labor subjects.

Labor Organizations and Their Activities

Democracy in trade unions—a survey, with a program of action. New York, American Civil Liberties Union, 1943. 86 pp. 25 cents.

The result of an intensive study of the structure of American trade-unions, this report analyzes such union problems as membership requirements and discrimination, expulsion of members and other disciplinary action, the powers of a union president and the executive board, conduct of elections, tenure of office, financial reports, and member participation in union policy determination. A separate section is devoted to recommendations.

Maintenance-of-membership awards of National War Labor Board. Washington, U. S. Bureau of Labor Statistics, 1943. 10 pp. (Bull. No. 753; reprinted from Monthly Labor Review, September 1943.) 5 cents, Superintendent of Documents, Washington.

El nuevo ordenamiento profesional ante los principios legales vigentes, [Argentina]. By Mariano R. Tissembaum. (In Derecho del Trabajo, Buenos Aires, August 1943, pp. 337–344.)

Analysis of provisions of the Argentine decree of July 1943 concerning labor organizations, especially with regard to their functions as representatives of the workers in connection with collective bargaining, conciliation, and placement.

Sindicatos e federações em 1943, [Brazil]. (In Boletim do Ministério do Trabalho, Indústria e Comércio, Rio de Janeiro, April 1943, pp. 85–189.)

Roster of organizations of employers, workers, self-employed persons, and those practicing liberal professions in Brazil, as of February 11, 1943, giving for each organization its address, date of legal recognition and of charter, and, for the local organizations, territorial jurisdiction.

La unidad es victoria. By Lázaro Peña. Habana, Confederación de Trabajadores de Cuba, 1942. 43 pp. (III Congreso Nacional de la CTC.)

An appeal to the delegates to the Cuban Workers' Confederation meeting at Havana in December 1942 for unity among labor organizations in time of war, with a brief summary of what had been accomplished by the Cuban Workers' Confederation in the present war period to meet the problems of the laboring class in various industries. Concludes with an outline of policies to be followed in order to meet future problems.

Jewish labor economy in Palestine: The economic activities of the General Federation of Jewish Labor (Histadruth Ha'ovdim). By G. Muenzner. Jerusalem-Tel Aviv, Economic Research Institute of the Jewish Agency for Palestine, 1943. 191 pp.

The activities reviewed are of two widely differing types—the work of the Histadruth as an employer and encouragement of organization of its members in various kinds of associations.

Manpower

Manpower requirements for 1943–44. Washington, U. S. Bureau of Labor Statistics, 1943. 8 pp. (Serial No. R. 1562; reprinted from Monthly Labor Review, August 1943.) Free.

The manpower outlook in Philadelphia in 1943. By Gladys L. Palmer. Philadelphia, University of Pennsylvania, Wharton School of Finance and Commerce, Industrial Research Department, 1943. 22 pp., charts. (Research report No. 7.) 50 cents.

Labor requirements for synthetic-rubber industry. Washington, U. S. Bureau of Labor Statistics, 1943. 9 pp. (Serial No. R. 1536; reprinted from May 1943 Monthly Labor Review.) Free.

Manpower: Solving the problems of labor shortage. New York and Washington, Research Institute of America, 1943. 92 pp.

Designed primarily for use by employers but contains information of general interest on such questions as labor supply, regulations issued by the War Manpower Commission, training, absenteeism, incentive pay, and the machinery of public controls.

Manpower psychology—an annotated bibliography. Compiled by Lee J. Cronbach. Pullman, Wash., [State College of Washington?], February 1943. Various paging; mimeographed.

Control of hiring in Great Britain, Germany, and Russia. (In Labor Market, U. S. War Manpower Commission, Washington, September 1943, pp. 24–41.)

Shows that the nature and extent of government hiring controls depend upon the degree of labor scarcity in the three countries, while the method of administration is influenced by the type of institution normally used for placement.

Occupations and Occupational Adjustment

Vocational interests of men and women. By Edward K. Strong, Jr. Stanford University, Calif., Stanford University Press, 1943. 746 pp., charts. $6.50.

Included in the major subjects dealt with in this comprehensive volume are the nature of interest; interest factors; guidance based on interests; differentiation of occupations, of superior and inferior occupation groups, and of skilled tradesmen; and the construction and scoring of an interest inventory.

Wartime jobs for girls. By Mary Rebecca Lingenfelter. New York, Harcourt, Brace & Co., 1943. 226 pp., bibliography. $1.75.

Contains practical data on highly useful jobs which girls can fill, the training required for such jobs, and how they can be obtained.

Job specifications for a hospital organization. Prepared by James Stephan, Nellie Gorgas, and Gordon Meade, M. D., for Committee on Personnel Relations, Council on Administrative Practice, American Hospital Association. Chicago, Ill., American Hospital Association, 1943. 97 pp. (Bull. No. 202.)

An attempt to provide standard specifications for hospital jobs or positions. Second printing of a volume first issued in 1940.

Job opportunities for girls in merchandising industry. Springfield, Illinois Department of Public Instruction, [1943]. 44 pp.; mimeographed.

Square pegs in square holes. By Margaret E. Broadley. New York, Doubleday, Doran & Co., Inc., 1943. 211 pp. $2.50.

Contains a history of the development of aptitude tests, a discussion of the tests in detail with case histories, and outlines of combinations of aptitudes which show that a person can successfully follow a specific line of work.

Post-War Reconstruction

After the war—1918–1920: Military and economic demobilization in the United States, its effect upon employment and income. Washington, U. S. National Resources Planning Board, 1943. 45 pp., charts. 5 cents, Superintendent of Documents, Washington.

Following the discussion of the period from 1918 to 1920 there is a description of differences to be expected in the transition to peace after the present war.

These differences, it is pointed out, will arise mainly from the fact that "this is total war; the last was partial war." As a result, greater dislocations in the economic and technical productive structure are to be expected, and Government will have to assume greater responsibilities than in the period following the last war.

Management's post-war problems. By Eric Johnston and Paul G. Hoffman. New York, American Management Association, 1943. 19 pages. (Personnel series No. 69.)

The first of the two articles in this pamphlet, "Labor relations in war and peace," by the president of the Chamber of Commerce of the United States, emphasizes the importance of voluntary action by employers and employees as distinguished from dependence on government action. It is urged that differences be adjusted not by work stoppages but by arbitration. The second article, on "Industrial relations problems of the post-war world," by the president of the Studebaker Corporation, who is also chairman of the Committee for Economic Development, describes the work of that committee, composed mainly of businessmen. It is indicated that the committee's main purpose is the making of plans to maintain "a satisfactory level of employment" as distinguished from "full employment" after the war.

A municipal program for post-victory employment. By Joshua Vogel. Seattle, Wash., Association of Washington Cities, August 31, 1943. 18 pp.; mimeographed. (Washington Municipal Bulletin; Information bulletin No. 87.)

A program proposed for cities of Washington, but stated in general terms. Procedures are described for taking inventories of municipal conditions and needs on which to base plans for public improvements. A plan is also outlined for a "Committee of 15," as recommended by the Washington State Planning Council, to include 2 employees, 2 employers, and others representing a broad cross section of community interests, for making surveys of purchasing desires and employment possibilities.

A survey of literature on post-war reconstruction. By Adolf Sturmthal. New York City, New York University, May 1943. 100 pp. (Institute on Post-War Reconstruction series of publications No. 1.) $1.

The UAW–CIO post-war plan. Detroit, International Union, United Automobile, Aircraft and Agricultural Implement Workers of America, UAW–CIO Education Department, 1943. 18 pp. (Publication No. 23.)

Post-war reconstruction: A case for greater Commonwealth powers [in Australia]. By H. V. Evatt, Attorney-General of Australia. Canberra, Commonwealth Government Printer. [1942]. 188 pp.

Report prepared for the constitutional convention in 1942.

Social Security

The social insurance movement. By R. Clyde White. (In Journal of the American Statistical Association, 1603 K Street NW., Washington, September 1943, pp. 358–364. $1.50.)

Reviews the course of social-insurance legislation throughout the world, showing the different types of systems in force at the end of November 1942.

The third freedom: Freedom from want. Symposium edited by Harry W. Laidler. New York, League for Industrial Democracy, 1943. 96 pp. 50 cents.

The Beveridge report. By Eveline M. Burns. (In American Economic Review, 722 Jackson Place NW., Washington, September 1943, pp. 512–533. $1.25.)

The author of this article examines the main outlines of the social-security plan for Great Britain proposed in the report by Sir William Beveridge, relationship of the proposals to the existing system, and major problems raised by the report.

Social security. Edited by William A. Robson. London, George Allen & Unwin, Ltd., 1943. 447 pp., bibliography. 15s.

Collection of articles on the various forms of social security in Great Britain. The first part of the book deals with the existing systems and the second, on post-war planning, contains a critical examination of the Beveridge plan followed by chapters on social-security administration and medical services.

La Caja de Previsión de la Marina Mercante Nacional en los años 1940 y 1941, [*Chile*]. (In Previsión Social, Ministerio de Salubridad, Previsión y Asistencia Social, Departamento de Previsión Social, Santiago, January–March 1943, pp. 54–61.)

Covers operation of the Welfare Fund of the Chilean National Merchant Marine during the years 1940 and 1941, and gives some figures for 1942.

Informe general sobre el seguro social ecuatoriano. By Emilio Schoenbaum. Quito, Instituto Nacional de Previsión, 1941. 223 pp.

A study by a consulting actuary of the International Labor Office, made in connection with proposed legislative and administrative reform of the social-insurance system of Ecuador. Analyzes existing social-insurance legislation, examines the technical and financial aspects of the different branches of the system, and discusses questions of administration. Appendixes contain actuarial tables and certain statistics of membership and operation of the funds for the year 1940.

Quinta memoria de la Caja Nacional de Seguro Social correspondiente al año 1941, [*Perú*]. Lima, Caja Nacional de Seguro Social, 1942. Various paging.

This report of the Peruvian Social Insurance Fund for 1941 provides detailed information on the development and operation of workers' hospitals, polyclinics, and related medical services under the Fund, with statistics of cash benefits for sickness, maternity, funeral expenses, etc. A supplement contains the text of governmental measures enacted in 1941 concerning compulsory social insurance.

Wages and Hours of Labor

Old-age and survivors insurance statistics: Employment and wages of covered workers, 1940. Baltimore, Md., U. S. Social Security Board, Bureau of Old-Age and Survivors Insurance, 1943. 272 pp., charts.

The tabulations give data on employment and taxable wages by State and region, sex, age, amount of earnings, industry, etc. The volume is the third of a series, the first volume covering 1937 and 1938 and the second volume, 1939. The 1941 basic tables, although not published separately, are available in the Social Security Yearbook, 1942.

Controversial issues in salary determination. By Frank H. Hall, Jr. Cambridge, Massachusetts Institute of Technology, 1943. 42 pp., bibliography. (Reports on sponsored fellowship investigations in industry, No. 4.)

The author discusses the methods used and the special problems in classifying and evaluating the jobs of salaried employees. He believes that a systematic method of salary determination, administered with the consent of the employees, is a practicable and beneficial course for business concerns to adopt.

Systematic wage administration in the southern California aircraft industry. By Robert D. Gray. New York, Industrial Relations Counselors, Inc., 1943. 90 pp., charts. (Industrial relations monograph No. 7.) $1.25.

A study of job analysis and evaluation as developed in 1941 by seven of the largest aircraft companies in southern California. The wage systems of the companies included in the plan are described as having been in a chaotic condition before the adoption of the plan, and its development contributed significantly to efficient production in this key war industry. There is a glossary of terms. The five appendixes contain texts of the successive plans as developed, excerpts from union contracts pertinent to job classification, and other documentary material.

Wage payment and wage collection laws. Washington, U. S. Department of Labor, Division of Labor Standards, 1943. 18 pp., pasters. (Bull. No. 58.) 10 cents, Superintendent of Documents, Washington.

O operário industrial, [*São Paulo, Brazil*]. By Oscar Egydio de Araujo. (In Boletim do Ministério do Trabalho, Indústria e Comércio, Rio de Janeiro, March 1943, pp. 129–138.)

Results of a survey of wages of 165 families in São Paulo, showing sources of income by income groups; indexes of average yearly cost of seven articles of food, 1934 to 1941; and indexes of cost of living from 1938 to 1942 (1938=100) covering food, housing, clothing, fuel, and transportation.

La fijación de salarios mínimos [México] para 1942–1943—orientaciones presidenciales. México, D. F., Secretaría del Trabajo y Previsión Social, Dirección General de Previsión Social, 1941. 71 pp., charts.

Examination of wage conditions in Mexico in connection with the fixing of minimum wages for 1942–43, covering wage movements and actual wage levels, 1931–40; real-wage indexes, and cost-of-living indexes (Federal District), 1934–40; agricultural wage rates, 1931–37 and 1940; wage indexes for manufacturing, 1936–40; and legal minimum-wage rates for period 1934–41. There is also a discussion of rules that should govern the fixing of minimum rates.

Women in Industry

The second year; A study of women's participation in war activities of the Federal Government. By Lucille Foster McMillin. Washington, U. S. Civil Service Commission, 1943. 71 pp., illus. Free.

Wartime employment of women in manufacturing. Washington, U. S. Bureau of Labor Statistics, 1943. 6 pp. (Serial No. R. 1571; reprinted from Monthly Labor Review, October 1943.) Free.

Woman workers in two wars. By Mary Robinson, U. S. Women's Bureau. Washington, U. S. Bureau of Labor Statistics, 1943. 22 pp. (Serial No. R. 1581; reprinted from Monthly Labor Review, October 1943.) Free.

Women workers in some expanding wartime industries, New Jersey, 1942. Washington, U. S. Women's Bureau, 1943. 44 pp. (Bull. No. 197.) 10 cents, Superintendent of Documents, Washington.

Safeguarding the woman employee. New York, Metropolitan Life Insurance Company, Policyholders Service Bureau, 1943. 40 pp., illus.

Review of different methods used to safeguard woman employees of industrial plants.

General Reports

Employment, income, and the cost of living, [Puerto Rico]. (In Economic Review, Chamber of Commerce of Puerto Rico, San Juan, September 1943, pp. 12–15.)

The article shows that there is considerable unemployment in the Island and a large number of persons are employed on relief works, but on the other hand there is a labor shortage in the areas producing coffee and tobacco. Cost-of-living indexes are said to be at a 25-year high, but the increases between January and August 1943 were largely offset by the fact that the Island's national income was rising at approximately the same rate.

Labor report [for Australia], 1941 and 1942. Canberra, Commonwealth Bureau of Census and Statistics, 1943. 171 pp., charts. 3s. 6d.

This abridged wartime edition of the annual labor report for Australia contains statistics of retail and wholesale prices, wages and hours of labor, employment and unemployment, industrial accidents, industrial disputes and methods of settlement, labor organizations, and production, in 1941–42 and earlier years.

El problema social en Bolivia—condiciones de vida y de trabajo. By Remberto Capriles Rico and Gastón Arduz Eguía. La Paz, Editorial Fenix, 1941. 172 pp.

Summary of a study of living and working conditions of miners, agricultural laborers, and city workers in Bolivia, made in 1940 by two officials of the Bolivian Government under the direction of two staff members of the International Labor Office. Some statistics of employment and wages in specified regions in the years 1937 and 1939 are included.

Wartime labor conditions in India. By Rajani Kanta Das. Washington, U. S. Bureau of Labor Statistics, 1943. 28 pp. (Bull. No. 755; reprinted from Monthly Labor Review, September and October 1943.) 10 cents, Superintendent of Documents, Washington.

Labor conditions in occupied Norway. By Henrik Palmström. (In International Labor Review, Montreal, November 1943, pp. 584–610. 60 cents.)

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Statistical abstract of Palestine, 1942. Jerusalem, Office of Statistics, 1943. 154 pp. 9s.

Includes statistics of employment, labor disputes, wholesale and retail prices, cooperative societies, and migration in 1941; wages in March 1942; and industrial accidents in 1940. Comparative figures for earlier years are given in most cases.

Extracto estadístico del Perú, 1941. Lima, Ministerio de Hacienda y Comércio, Dirección Nacional de Estadística, [1942]. 534 pp., charts.

Statistical compendium of Peru, which includes for 1941 and some earlier years statistics of operation of five low-cost restaurants for workers; membership and other data of the National Social Insurance Fund; indexes of wholesale and retail prices and cost of living in Lima; number of workers and wages in the rice, wheat, cotton, and mining industries; and industrial accidents (1941 only). The volume is printed in Spanish but English translations of the main table heads are furnished.

Soviet planning and labor in peace and war. By Maurice Dobb. London, George Routledge & Sons, Ltd., 1942. 126 pp. 4s.

The four studies presented in this volume deal, respectively, with economic planning in the U. S. S. R.; the Soviet financial system; work and wages; and the economic effects of the war.

Statistisk årsbok för Sverige, 1942. Stockholm, Statistiska Centralbyrån, 1943. 407 pp.

This 29th issue of the Statistical Yearbook for Sweden gives information on the usual topics. Subjects of labor interest include wages, unemployment, strikes and lockouts, collective agreements, prices and cost of living, cooperatives, production, and public assistance. Some of the statistics are for 1942 but most of the data are for earlier years.

Printed in Swedish with table of contents, table heads, and other equivalents in French.

U. S. GOVERNMENT PRINTING OFFICE: 1944